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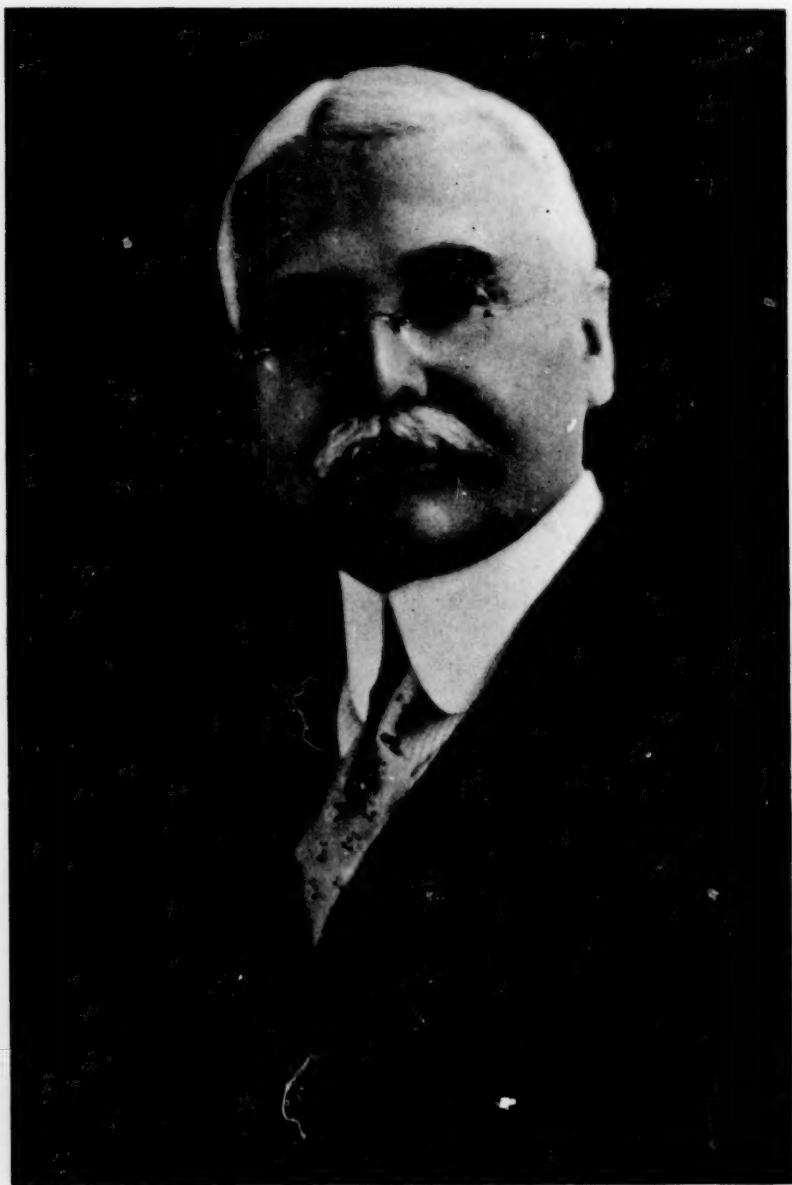
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Owen Copp, M.D.

AMERICAN JOURNAL OF PSYCHIATRY

SOME PROBLEMS CONFRONTING THE ASSOCIATION.*

By OWEN COPP, M. D.

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Members of the Association, Ladies and Gentlemen.—The founders of this Association were first to organize as specialists in the practice of medicine in this country. The need of conference and co-operation in a common field of labor united them. The spirit of service inspired their zeal in promotion of the common welfare. Their altruism has been characteristic of leadership in the long history of the Association.

The founders were first in another enterprise, the endeavor to standardize hospital methods in construction and administration. As early as the sixth annual meeting the first of that famous series of "propositions" was propounded by Secretary Kirkbride and adopted by his associates. In the passage of years proposition after proposition was added until was built a virile hospital creed, representative at the outset of consensus of opinion of the members and potent in the councils of trustees and superintendents of institutions, old and new.

Inflexible adherence to this creed led to controversy and, ultimately, restraint of individual initiative and action, but the trenchant motive behind it is significant and uplifting. It was rooted in a sense of obligation to the great human and material interests entrusted to this Association. It accepted responsibility for community of action and leadership in a domain otherwise prone to neglect.

* Presidential address at the seventy-eighth annual meeting of the American Medico-Psychological Association, Boston, Mass., May 31-June 1-2, 1921.

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Vast has been the growth of these interests in more than three-quarters of a century since the founding.

The original membership of 13 has nearly passed the goal of 1000. The public institutions for the treatment of mental diseases have increased from 26 to over 500 in the United States;¹ their aggregate of patients from about 3000 to over 235,000; their annual admissions from about 2000 to over 75,000; their annual cost of maintenance and upkeep, from less than \$500,000 to over \$65,000,000; their valuation of plants and equipment from about \$3,000,000 to over \$250,000,000.

The cost of care and treatment of the insane, feeble-minded and epileptic in New York and Massachusetts exceeds one-eighth of all the expenses of state government.

Amazing is the fact that the number of beds for the treatment of mental diseases in public institutions throughout the United States *equals, probably exceeds*, the aggregate for all other forms of illness.

Impressive as these figures are, they are insignificant compared with immeasurable wastage through neglect of preventive and curative measures; through avoidable dependency, inefficiency, delinquency and degeneracy; through adverse reactions of mental factors in personal, family, social, educational, industrial and governmental relationships. The drag upon human progress, and the sum of human misery are incalculable.

Our government, state and national, is confronted with no greater issue, nor with any issue greater in potentiality for good or ill to their people, than is involved in the development of a wise and adequate policy in these matters.

True, then, to the spirit of the founders and the traditions of the Association, we face grave and imperative problems.

The apparent indifference of the public, legislators, even physicians, scientists and teachers of medicine, would dissipate, if they could be made to realize the magnitude, importance and practical bearing of these problems.

Here, therefore, lies our first duty. Public and professional consciousness must be aroused to sense the facts in the present situation. The mental patient rarely gets "a square deal"; rarely

¹ The data on which these statistics are based were furnished by the National Committee for Mental Hygiene.

has the best chance, or an even chance with sufferers from other forms of illness, for the study and treatment of his malady, which often goes unrecognized until the best hope of restoration has long passed.

The note of prevention has hardly been touched.

The family physician, the first aide, receives no adequate instruction or clinical experience in his medical course to fit him to recognize and treat incipient mental disease.

Essential provision for treatment is often lacking, even trained physicians, nurses and other personnel in many hospitals.

Insufficiency of living space is almost universal in public institutions.

Clinical and research laboratories, which are indispensable in diagnosis, treatment and betterment of methods, are deficient usually, or absent altogether.

The misconception, even among physicians, is prevalent, that mental patients, unrecovered after short, initial study and treatment, may properly be put aside for mere care in asylums during protracted illness without persistent and resourceful effect to alleviate and rehabilitate.

Mental abnormality is too often regarded as a matter of charity and poor relief, not as a vital issue of disease and health.

Questions of support must usually be answered before response to need of prevention and cure.

Finally, has not the tendency, now happily abating, to isolation and a lack of hopefulness, retarded progress in mental medicine?

I wish to strike no note of pessimism. I feel none. The future of psychiatry presents to me a bright prospect. But at the threshold may we not wisely strive to sense the realities; seek a clear conception of problems; consider practicable plans and policies?

Out of the consciousness of need will there not arise the determination and hopefulness necessary for worth while achievement?

What possibilities invite us?

Prevention of syphilis and inebriety; removal of physical and hereditary causes of mental abnormality will gradually solve one-third of the problem, probably more.

Adequate treatment of mental disease will restore to health at least one-fourth of mental patients, probably more.

Residual disabilities may be alleviated by good medical and nursing attention, thereby diminishing the amount and cost of care of such afflicted.

Happiness, comfort and usefulness will abundantly reward persistent and resourceful effort to alleviate permanent mental disability and rehabilitate the mental patient in the hospital and the community.

Discernment of mental factors and their understanding adjustment in human affairs will reduce poverty, delinquency, economic strife and waste and conserve in a large way the welfare of individuals and the enduring peace of nations.

Where is the path? What specific obstacles lie in the way?

Some old alignments must be broken; false concepts abandoned.

Our chief concern is no longer with dependency, custody of the dangerous and defence of the public.

Lunacy, asylum, custodial care and other false or hopeless expressions must give place to the language of beneficence to the patient, his guidance and protection from pernicious tendencies; of prevention, treatment, cure or alleviation of disease; of rehabilitation of the mentally disabled; of removal of causes of mental abnormality; of conservation and promotion of mental health.

Psychiatry is advancing into its rightful alignment with the science and practice of general and psychological medicine in the realm of health.

The path of mental health starts and ends in the community; its course leads through the home, the school, the hospital, out again into the widening network of supervisory and helpful agencies of the community; guide posts along the way are prevention, treatment, rehabilitation.

I. Prevention through:

a. Eugenics by education, wise supervision, prohibition of marriage of known defectives, segregation of vicious and delinquent defectives in institutions, sterilization in exceptional cases for specific reasons, registration of defectives.

b. Adequate psychiatric inspection of school children and provision in special classes for teaching the backward.

c. Institutional training in occupation and habit formation for such children non-educable in the public schools.

- d. Early recognition and treatment of mental abnormality by—
 1. The family physician, which will necessitate adequate teaching and clinical experience in psychiatry as a *requirement* of his medical course.
 2. Psychiatrists in charge of psychopathic wards of general hospitals and in neuro-psychiatric practice.
 3. Community mental clinics, as first aid stations for information, history taking, preliminary examination, advice, treatment and supervision so far as practicable at home, as guides to special agencies.
 4. Hospital mental clinics, as reference centers for special examination, diagnosis in doubtful conditions, and observation within the hospital; special treatment and supervision in the community.
 5. Travelling mental clinics to reach remote and scattered communities inaccessible to other clinics.
- e. Early removal and treatment of physical causes of mental abnormality in co-operation with general hospitals, internists and specialists.
- f. Prevention and treatment of syphilis and inebriety.

A wise program of mental health provides first for prevention but must include:

2. Adequate provision for treatment in—
 - a. The *private, incorporated psychiatric hospital* with endowment for charitable and other special service; capacity for 100 to 300 patients of selective class and character of mental illness; center of clinical and laboratory research; short, intensive treatment of curable and improvable conditions; observation and diagnosis of doubtful conditions; affiliated with general hospitals and medical schools for clinical experience and teaching for graduates and special investigators in psychiatry; performance of all these functions without pecuniary restriction; but, *in addition*, alleviation and rehabilitation of patients during prolonged illness, so far as they require hospital supervision and are able to pay the cost of special conditions and adjustment for indefinite periods.
 - b. *Public provision*, chief agency of treatment of every type of mental patient in every state, stage and duration of illness.
 1. The *psychopathic ward or pavilion* of *general hospitals*, with psychiatric staff and equipment; separation from other

wards; for temporary and emergency care; short, intensive treatment of mental states not recognized as such by patient or his friends and other conditions which are curable and not disturbing to the general hospital régime; essential to the diagnosis, removal or treatment of physical causes; conducive to right relationship of physical and mental illness and least stigma of mental disability.

2. *The psychiatric clinic*, integral part of a university general hospital and medical department; primary functions, investigation and research; instructions and clinical opportunity in psychiatry for medical students and specialists; specialized service in observation, diagnosis, treatment and rehabilitation of selected patients, limited in number and duration of service; capacity 60-120 patients; supported by state or endowment; no pecuniary discrimination.

3. *The Psychopathic Hospital*: (1) The metropolitan, (2) The district.

(1) *The metropolitan psychopathic hospital*; location in large, urban center; capacity 100 to 200 beds; high admission rate and rapid turnover of patients; affiliation with medical schools and general hospitals; all the functions of the *university psychiatric clinic* and, *in addition*, a great clearing house for many patients received for temporary and emergency care, observation, and classification preliminary to distribution to other hospitals and agencies of relief; separation of clearing house from treatment service important; consultant relationship to district psychopathic hospitals.

(2) *The district psychopathic hospital*; location accessible to the several communities of a district requiring provision for a maximum of 2000 patients; reception of all classes of patients directly from its district; all the functions, except the clearing house, of the metropolitan hospital within the requirements of its district and limitation of advantages of location; and, *in addition*, because it may have ample acreage of land for pleasure grounds and occupation of patients, treatment of prolonged mental illness for indefinite periods; agency of relief of the metropolitan hospital in such cases; chief

recourse of the poor and those of moderate means for treatment and hope of restoration to mental health; maintenance of the highest standards imperative.

After the utmost attainment in prevention and treatment, there remains a great humane and economic problem in alleviation of permanent mental disability and rehabilitation of such afflicted.

3. Rehabilitation is an inseparable function of every mental hospital in:

a. *The institution* whose alleviation of physical and mental condition, systematic training in habit formation, adaptability and occupation reduces the amount and cost of care and promotes comfort, contentment and usefulness of patients during their institutional life.

Resultant improvement facilitates the passage of many patients out of the restrictive régime of the wards into comparatively free and normal living in:

b. *The occupational homestead*, separate in space but a part of, and accessible to, the hospital for medical and nursing supervision and quick response to change of mental state; the interests and atmosphere of a home; suitable occupation under trained direction; careful grouping of patients in small but variable number according to mental state, social adaptation, environmental adjustment and occupation; a station between the hospital and the community for patients while they may enjoy these privileges under such supervision but may not safely and usefully live with their families.

Finally, rehabilitation finds its ultimate and broadest field in:

c. *Community psychiatric service*; necessary function of every mental hospital; part of its medical service under direction of a hospital physician with at least one social worker; special and adequate support justified by increase of discharge rate, longer stay at home and self support of patients; an aid to discharged patients in regaining and holding their normal places in life; safeguards against present dangers and future increase of degeneracy; promotes early recognition, prevention and treatment of mental abnormality; conduces to better understanding of mental reactions in human affairs and through adjustment and supervision raises the level and extends the range of safe and salutary living of mental patients in the community.

Achievement in a program of mental health depends on numerous and varied factors.

Naturally a leading rôle falls to the mental hospital, as a source of counsel to its community, whose mental problems should gravitate to it as the central laboratory for their investigation and practical solution.

The activities of mental hygiene, vitalized by its inspiration, and fortified by co-operation throughout the sphere of its influence, should radiate from it as an agency indispensable in training and furnishing personnel, setting standards, guiding methods and policies and sustaining the impulse to service.

Each type of mental hospital will find its peculiar and important place. The psychopathic wards of general hospitals, the private, endowed psychiatric hospital, the university psychiatric clinic, the metropolitan psychopathic hospital, will each acquire special functions within distinct and limited fields with individual and exclusive sources of interest and support, but the *district psychopathic hospital*, usually designated the state hospital, will alone have full opportunity for service within widest range of usefulness with utter dependence upon general interest and support of the public. It will always be the only recourse of the poor and those of moderate means in the greatest of human afflictions; will minister to more than 90 per cent of all mental patients throughout the longest illness; will have exclusive opportunity in most cases, so that any *deficiency* means to the patient proportionate deprivation of the best hope of restoration to health or alleviation of disability. It must strive to meet *every* requirement of *every* type of mental hospital because the necessity of *every* kind of service is sure to arise without possibility of other aid in many cases.

Hence, the District Psychopathic Hospital becomes a chief consideration in laying the foundations of good psychiatry and insuring to the multitude of mental patients the most humane and enlightened treatment.

It is beset with dangers and difficulties.

The outstanding menace is politics, whose domination must be evaded in any system of state administration and policy. Even temporary deviation from the best theory and practice may be justified to escape such evils of existing situations and controlling

personalities of the time and place ; but the long perspective must not lose sight of the mark set by the best experience.

Probably, the surest safeguard in the long range is decentralization within the bounds of efficiency under the supervisory relation of state government to institutions ; reliance upon competent investigation, comparison and conference to attain uniformity of methods and standards and co-operation, under the driving force of professional and public opinion, educated by wise publicity of facts and principles.

Such *supervisory method* may be slow, and at times halting, but progress is surer and greater than under the *control method*.

Deficiency of living space and resultant crowding of patients with liability to violence and infection is as common—almost universal—in public institutions as it is deplorable. The cause lies deep in public unconsciousness of the dire consequences ; but some relief lies within reach through wise foresight in systematic planning over considerable periods for the inevitable increase of mental patients ; avoidance of special building commissions by appointment at the outset of the permanent board of trustees and superintendent who can be held responsible for satisfactory results ; standardization of specifications of construction and use of the same type of building for like purposes with revision as progress may indicate ; insistence upon durability, convenience in arrangement and provision for work, ample facilities for treatment of patients, clinical and laboratory research, sufficiency but not excess of living space ; and absolute elimination of waste in every form. The buildings should be made attractive by their simplicity, fair proportions, good architecture, and pleasing arrangement in beautiful grounds. There should be no monumental display, decorative stone courses or other ornamentation, no unnecessary connecting corridors and underground passages, unusable basements, dark interiors, high ceilings nor any non-essential. The inevitable alternative to strict economy of initial construction and later administration is to the patients deprivation of sufficient space for their best treatment and safe, sanitary and comfortable living.

The disadvantages of over development of District Psychopathic Hospitals may be unavoidable. It is easier to induce a legislature to extend existing plants with good organizations than

to convince it of the need of a new hospital with many uncertainties. Expediency and inaction favor extension.

Vigilance and unswerving adherence to a well-thought-out policy, agreed upon as the best under all the circumstances, are required to combat this tendency.

The growth of a public hospital should not surpass the needs of its districts nor force removal of patients beyond reasonable nearness to home and friends to sustain their interest and save expense of travel; should not deprive any patient of personal knowledge and individual attention of a competent charge physician; should insure good classification of patients and economy in administration.

Too large capacity tends to loss of individuality in mass grouping of patients; relative insufficiency of medical and nursing personnel to afford him thorough examination, complete understanding and attention to his needs. Economically, there is dissipation of the best energy of the higher personnel in mere adjustment to abate friction of many and complex parts of a great mechanism which consumes the forces which would be applied in a smaller and simpler organization to the direction of ultimate workers to the prevention of waste and increase of efficiency.

On the other hand, too small capacity might not afford sufficient differentiation of classes to permit the best classification of patients.

The requirement of the small hospital differs only in degree from that of the large hospital in the qualification and specialization of its personnel and adequacy of facilities and equipment for treatment of patients, clinical and laboratory research, community service and good business administration. Unhappily, the day of the one, all round person competent and willing to perform many and varied duties seems to have passed, if it ever existed. This increases cost of service. The minimum limit of capacity cannot wisely drop below the level of reasonable expenditure.

The happy, economic mean of these extremes is not readily apparent and will always be debatable.

Probably dissent will not be general from a maximum capacity of 2000 patients, which is the basis of the present discussion.

Such a district psychopathic hospital must discharge its obligations to patient and community in these particulars—

1. Every patient must have the best treatment of mental and physical conditions possible with present knowledge.
2. The personnel must strive to add something out of its own experience and investigation to increase the store of knowledge and advance standards and methods of treatment.
3. Interest must be taken in the mental problems of its community and service rendered before admission and after discharge of the patient.
4. Business administration must minimize waste of energy and material to conserve the resources available for the higher purposes of the hospital.

These primary requisites define four spheres, distinctive in function and interspaced with complex and elusive relationships—

1. *The clinical*; point of contact with the patient and convergence of all services; examination, diagnosis and treatment of patients; clinical research; medical administration.
2. *The scientific*; specialized functions without routine outside of the laboratory; adjunct to clinical sphere in laboratory service necessary to diagnosis and treatment, and in the study of special clinical problems and such research; pathological examinations; investigation into the structure and functions of the nervous system and related research.
3. *The communal*; community psychiatric services as before described.
4. *The administrative*; non-medical administration relating to business matters separable from the care of patients and co-operation with other spheres in common relationships.

Each of these spheres has—

1. An internal field of clear definition and relative independence.
2. An external field of common and possibly conflicting relationships.

Obviously, there must be a competent head in each of these fields; *in each interval*, a director experienced in the special functions of that sphere: *in the external field*, the medical superintendent of the hospital, trained in all spheres; mature, sympathetic and co-operative in supervision; just harmonizer of conflicting relations, whose decisions are final subject to appeal to the governing board.

Such an organization would express present tendencies and conduce to worthy attainment in the special functions of the large district psychopathic hospital.

But where are the men to fill specifications of five highly specialized types of personnel?

The outstanding fact in psychiatry and in every other field of endeavor to-day, is the deficiency of workers of the best capability, of stable character, devoted to high ideals and willing to bear responsibility.

How may such men be attracted and held?

There are two prerequisites:

1. Intimate contact of the student and young graduate in medicine with the best expression of medical and scientific ideals in modern psychiatry. This is the promise of the university psychiatric clinic.

2. Assurance of a satisfying career in the average mental hospital.

The realities of subsequent experience in such hospitals must confirm the first impressions and deepen the interest acquired in the university psychiatric clinic.

The conditions of work must encourage self expression and growth along lines of individual capability and desire.

Each of the above spheres should offer such opportunity and insure a life career, either within itself or through logical promotion, with certainty of sufficient pecuniary reward, professional and social recognition.

Thus gradually would evolve the expert clinician, scientist, community psychiatric worker and business administrator.

Nevertheless, there are other perplexities.

There have been enunciated the principles of differentiation into spheres of special function; of headship and autonomy in internal relations of each; of supervision, co-ordination and general leadership of the medical superintendent in the external field of common and conflicting relationships; but his release from the bondage of business administration has not been accomplished.

How may the energy, attracted by the highest reward, conserved by the broadest experience and longest tenure of service be diverted from the channel of administration to medical and scientific attainment?

The administrative sphere interposes the chief obstacle. Its deficiencies are palpable. The public and legislatures insist upon precedence in their correction.

Good business administration is as vital to the efficiency of a hospital as normal organic functioning of the human body to clear thinking and mental achievement of an individual. Neither appears in consciousness unless obtruded by disorder.

There is an obvious remedy. The administrative sphere of the hospital must be raised to the level and correlated with the clinical, scientific and communal spheres on the same plane of ethics and competency.

Its director should have technical education and successful business experience. He should have equal capability and opportunity for development, and equal incentive, reward and assurance of a satisfying life career.

Thus the medical superintendent may be enabled to maintain his primacy in the medical functions of the hospital, without sacrifice of its material interests: may be freed from routine; may organize every detail under a competent head of department and give personal attention only to exceptional and new situations.

Stability of service is the flower of an adequate hospital régime. Conditions of work, opportunity, satisfying reward, assurance of the future, all avail much, but the right or ill adjustment of living relationships will sweeten or embitter them all. Harmony and satisfaction with resultant permanence and economy of service of a hospital personnel can never be secured without removal of the intimate and unescapable contacts now necessitated in most institutional households. Separation of all living quarters from buildings used for patients or administrative purposes; provision for families in single houses, married couples in independent apartments, single persons in careful groupings with suitable welfare supervision; all gathered into appropriate communities of congenial classes near the institution but in direct contact with the outside public; necessitating going to and from work but releasing the worker from the institutional atmosphere during relief periods; these would be the crowning achievement in hospital development.

In conclusion, the ideals sketched in this address, may not be all realized. They will be recast in future study and progress. Some are not attainable without laborious and persistent endeavor. But they are the forecast of a life experience and aspiration.



THE PLATELET COUNT AND BLEEDING TIME IN CATATONIC DEMENTIA PRÆCOX.

By SHICHI UYEMATSU, M. D.,

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INTRODUCTION.

It has long been known that the hypersecretion of the thyroid gland is accompanied by a prolonged coagulation time of the blood, while the hypofunction shows a shortening of the same. Alfred Hauptmann¹ was the first to carry out an investigation along this line and especially on catatonic dementia præcox hoping that the determination of the coagulation time would reveal the functional condition of the thyroid as contrasted with the nervous and mental diseases of other origins. In many cases of catatonia the coagulation began to take place in about five and a half minutes, and in no case did it take longer than seven and one-half minutes which was the lowest limit for the normal. Most of the nervous and mental cases studied showed more or less retarded coagulation, while the catatonic dementia præcox cases presented a constant, decidedly shortened coagulation.

This peculiarity of the dementia præcox, catatonics, was attributed by Hauptmann to the diminished function of the thyroid gland.

Shortly after the publication of Hauptmann's article, Itten² presented his hematological study on a few psychoses, and together with some other findings, the coagulation time was taken into consideration. Among 54 cases of dementia præcox (including hebephrenic and paranoid forms) the coagulation time for 6 cases was normal or somewhat retarded, for 15 the time was slightly subnormal and the rest of the cases, *i. e.*, the majority showed a marked shortening. He did not, however, try to explain the significance of the finding, saying that our present knowledge

¹ Hauptmann, Die Beschleunigung der Blutgerinnungszeit bei Katatonie. *Zeitschr. f. d. ges. N. u. P. Bd. 29, 1915, p. 323.*

² Itten: Zur Kenntnis hæmatologischer Befunde bei einigen Psychosen. *Zeitschr. f. d. ges. N. U. P. Bd. 24, p. 341, 1914.*

of the biology of the coagulation is too meagre to draw any conclusion regarding the cause of this peculiar condition.

Whatever the source may be, this new finding of the shortened coagulation time seems to the writer to be extremely interesting and significant. Further investigation in this direction might help, at least to a certain extent, the solution of the much discussed and everlasting question as to cause of dementia præcox or schizophrenia.

THEORY OF COAGULATION.

Hewton (1772) was the first to discover that coagulation can be inhibited indefinitely by the addition of neutral salts, such as sodium sulphate, to the blood. It was by a study of such bloods that he arrived at the conclusion that the formed elements of the blood take no part in the production of the clot.

Buchanan, to whom we owe the modern ideas of the coagulation of the blood, held the opinion that it is due to the conversion of a soluble constituent of the blood into fibrin by an action exerted probably by the colorless corpuscles.

Denis, Alexander Schmidt, Hammersten, Wooldridge, Morawitz, Green, Arthus and Pages, Pekelharing, Delezenne, Fuld and Spiro, Nolf, Mellanby, Rettger, Howell and others made an intensive study of this subject. Their opinions in regard to the coagulation process differ more or less.

Two of the representative theories which seem to be most generally accepted at present will be briefly stated. Morawitz, Fuld and Spiro, independently, proposed the theory which assumes that the thrombin is present in the blood in an inactive form which is called thrombogen. This thrombogen is converted into thrombin by the action of calcium salts and an organic thromboplastic substance which is called kinase or thrombokinese. Thrombokinese is derived from the tissue cells in general, especially by those rich in nuclein, also by the cellular elements of the blood. In the circulating blood calcium salts and thrombogen are present, but no kinase, and when the blood is shed the disintegration of the platelets and leucocytes liberates thrombokinese, which then combines with calcium and changes thrombogen to thrombin.

Howell² advanced a somewhat different view which is expressed as follows: Prothrombin may be converted into active thrombin

²Howell: A Text-Book of Physiology. Sixth Edition.

by the action of the calcium alone. This action does not occur in the circulating blood because an antithrombin is present in amounts sufficient to prevent it. In shed blood the tissue cells (platelets) furnish a thromboplastic substance (Kephalin-protein) which neutralizes the action of the antithrombin and thus permits the calcium to react with the prothrombin to form thrombin.

Both theories assume the action of the thromboplastic substance. In the former, this substance acts as kinase directly in the conversion of prothrombin to thrombin, while in the latter the substance permits the conversion indirectly by neutralizing the antithrombin.

THE BLOOD PLATELETS, AND THEIR SIGNIFICANCE.

The blood platelets (Bizzozero), hæmatoblasts (Hayem) are colorless, discs, circular, elliptic, or rod-like in shape, generally with a diameter one-half or one-third of the red blood corpuscles. Their size in fresh specimens vary, according to different writers: 2.5 to 5 microns (Determann); 1.5 to 3.2 microns (Osler); 2 to 7 microns (Preisich and Heim). In general their size varies inversely as their number; that is, the more the platelets the smaller they are (Emerson). The number of the platelets in a normal person has been variously stated to be from 180,000 to 800,000 per cm. The normal platelet count is also differently given: Ayaud an average of 500,000; Howell, an average of 300,000; Osler, 250,000; Determann, 225,000; Enden, 245,000; Wright, from 250,000 to 400,000; Gram, from 200,000 to 500,000 but rarely less than 300,000. It has been claimed by authors that their number varies in the same person at different hours of the day. Helber found no great daily variation (190,000 to 260,000, average 228,000). The difference in statements of authors in regard to the number of platelets may probably be due to the method adopted (Starling). The platelet count was found to be lower by Wright's method than by that of Pratt (Duke).

As to the nature and origin of the platelets, authors' opinions vary greatly and in spite of the large amount of research done nothing definite has been obtained. Donne considered the platelets "globulins"; Schulze, fragments of broken down leucocytes; Bizzozero, independent corpuscles, a view which Osler also holds;

Loewit, artefacts; Hayem, very young red blood cells. In 1897 Arnold suggested that they might be fragments from constricted red blood cells or fragments of cells which had gone to pieces. Mueller and others consider that these platelets are formed from red blood cells and that this formation is a necessary preliminary step in coagulation. Maximow considers them to be the extruded inner body of the nucleoid. Engel thinks these masses are remnants of the nucleus. Preisich is one of the last to insist that they are extruded nuclei of the red blood cells, and are in constant process of formation; that the platelets increase as red cells increase, and that eosinophile leucocytes are white phagocytes which have ingested platelets. Deetjen proved by his agar-plate method that they are independent cells, motile and nucleated. Dekhuysen and Kopsch confirmed Deetjen's work. Deetjen believes them to be actively amoeboid while most of the later observers are inclined to deny it. Wlassow says that they may extrude pseudopods, but they never show true amoeboid motion; chloroform will stop the amoeboid motion of leucocytes, but not that of plates; Deetjen uses an agar field, which would much favor the production of diffusion currents. Wright⁴ has offered very strong evidence that the blood platelets are formed from the megakaryocytes of the bone marrow. These cells frequently show budding masses of the same structure as the blood platelets. The hyaline peripheral zone of the giant cell has the power of amoeboid motion and can be observed to give out protoplasmic processes. Blood platelets are found only in such animals as have megakaryocytes and only in embryonal mammalian blood at the time when giant cells are observed in the hematopoetic organs. While blood platelets are easily demonstrated by various methods, it is also possible to obtain blood in an uncoagulated state, from the vessels, in which no trace of platelets can be observed. Buckmaster has shown that a film of blood examined in a platinum loop, kept carefully at the temperature of the body, presents no trace of platelets. The same absence of platelets is to be observed when blood is received into sterile blood serum of the same species of animal and kept at the body temperature. On allowing these specimens of blood to cool, blood plates make their appearance. If the non-coagulable plasma is cooled to zero C. for 24 hours, a

⁴ Wright, *Journal of Morphology*, XXI, 263, 1910.

precipitate indistinguishable from blood platelets is found to have been produced, under the action of cold. Sterling,^{*} owing to the above mentioned facts, is inclined to believe that the blood platelets do not form a constituent of the normal living blood, but are produced in the plasma either on contact with foreign bodies or by lowering its temperature from 37° to 18° or 20° C. These, he says, may be regarded as precipitates produced in the plasma when it undergoes alterations, their appearance being the first sign of changes in this fluid. According to Kossel and Lilienfeld the blood platelets consist of a chemical combination between protein and nuclein, and hence they are also called nuclein plates by Lilienfeld, and are considered as derivatives of cell nucleus.

There is no difference in opinion that the blood platelets have a certain connection with the coagulation of blood. The majority of writers think that the platelets play an important part in the formation of thromboplastic substance, either fibrin ferment or a substance which neutralizes the action of antithrombin. As for the precise manner in which the platelets act in coagulation, very little is known, and views are unfortunately very divergent.

It seems to be certain that there is a relation between the number of platelets and the time of coagulation. A number of observers have stated that in hemorrhagic diseases (there are some exceptions) in which there is delayed coagulation and tendency to bleed, there may be a great reduction in the number of plates.

Duke states that in cases of hemorrhagic diatheses, the transfusion of blood from normal person removes the hemorrhagic tendency, while increasing markedly the number of platelets. But in three days the number of platelets again falls to a low level, and simultaneously there is again a tendency to spontaneous bleeding.

According to Gram's^{*} recent observation, in all cases where the platelet count falls below 100,000 per cmm. one finds a protracted bleeding time often longer than 10 minutes (normal 4 minutes).

Pratt found no direct relation existing between the coagulation time and the platelet count. As for example, the coagulation

^{*} Sterling, Principles of Human Physiology. 1912.

^{*} Gram, Archives of Internal Medicine, March, 1920.

time of the blood obtained from a very superficial wound of the skin was two minutes and the plate count was 170,000 per cmm. Blood from a deeper cut made in the same individual at the same site coagulated in five minutes, and contained 223,000 plates per cmm.

The differences of opinions in the cases above mentioned are probably due to the delicacy of the tests in both platelet count and coagulation time. The external conditions, under which these tests were carried out, would change the results considerably. In this respect the writer thinks that Duke's method for the determination of the bleeding time is very valuable. Duke's bleeding method is done under natural conditions while the various tests for the coagulation time are carried on under different external conditions. It must be mentioned that the bleeding time and the coagulation time are altogether different, although in many cases they show the same tendency for shortening or lengthening. Duke found the bleeding time of several jaundice cases to be normal, whereas the coagulation time was very much delayed. Pratt saw a patient with purpura, bleeding to death from the mucous membrane, when the coagulation time was normal.

Duke found a great delay in bleeding time in:

- (1) Cases in which the platelet count was excessively reduced (9 to 10 minutes).
- (2) Cases in which fibrinogen content of the blood was excessively reduced (12 hours to 10 minutes), and
- (3) Experimental animals in which both platelets and fibrinogen were reduced.

In the expectation of obtaining some light on the peculiar condition of the coagulation time in catatonic dementia præcox, the writer tried to determine the bleeding time and the number of the platelets, together with the cytological study of the blood.

METHODS ADOPTED.

For bleeding time Duke's¹ method was adopted. A small cut was made in the lobe of the ear. At half-minute intervals the blood was blotted up on the edges of the absorbent filter paper. This gave a series of blots of gradually decreasing size; each blot

¹ Duke: The Relation of Blood Platelets to Hemorrhagic Disease. *Journal of American Medical Association* 55, p. 1185, 1910.

represented one-half minute's out-flow of blood. The rate of decrease in the size of the blots showed the rate of decrease of the hemorrhage. The cut was made with a very sharp lancet and was regulated so that the wound was 2 mm. in depth. The blood should flow very freely at the beginning and no pressure should be applied either at the beginning of the out-flow or at the time of blotting. The size of the first blot should be over 1 cm. in diameter. The total duration of such an artificial hemorrhage is called the bleeding time. The bleeding time is, to a certain extent, dependent upon the quality of the paper used. Throughout this research the same sort of paper was used. The paper thus tested could be kept or attached to the case history and be compared with those of the further tests.

There are, roughly speaking three methods for the platelet count :

(1) Direct count in dilution after the ordinary hemocytometric procedure using only a certain fixing solution for dilution.

(2) Indirect count, in which the relation of platelets to erythrocytes is counted, in a variable dilution with a fixing fluid.

(3) Direct count of platelets of the citrated plasma, calculating the number from the known relation of citrated plasma and the volume of the blood cells.

The writer tried each of these groups but the simplest method seemed to be the most desirable, since the complicated procedure would be apt to change the result. The writer used Hayem's solution for fixing. The solution was first drawn up to the mark 3 or 4, then the cut was made in the tip of the finger, the blood was drawn so that the first solution reached to the mark 8 or 9 respectively, thus taking five portions of blood in the pipette. If the platelets were found agglutinated or adherent to the blood cells the preparation was not used. This method gives, when one is practiced, a fairly constant value.

PRELIMINARY EXAMINATIONS.

Platelet count and determination of bleeding time was done on 50 normal individuals as is shown in Table I.

TABLE I.

No.	Platelet count.	Bleeding time.
1	212.000	5.0
2	316.000	4.5
3	244.000	5.0
4	284.000	5.5
5	252.000	4.5
6	212.000	7.0
7	212.000	6.0
8	224.000	5.5
9	296.000	4.5
10	236.000	5.0
11	296.000	5.0
12	324.000	4.5
13	412.000	4.5
14	324.000	5.0
15	224.000	5.0
16	196.000	6.0
17	368.000	4.5
18	224.000	5.0
19	364.000	5.0
20	424.000	4.5
21	384.000	4.5
22	188.000	6.0
23	296.000	5.0
24	260.000	5.0
25	244.000	5.5
26	300.000	5.0
27	516.000	5.0
28	196.000	4.0
29	200.000	5.5
30	244.000	6.5
31	364.000	5.0
32	272.000	5.0
33	232.000	5.5
34	220.000	6.0
35	300.000	5.0
36	316.000	5.0
37	280.000	4.5
38	240.000	6.0
39	220.000	6.0
40	248.000	5.0
41	376.000	5.0
42	204.000	4.5
43	216.000	6.5
44	336.000	5.0
45	196.000	7.0
46	272.000	5.0
47	244.000	5.5
48	260.000	5.0
49	300.000	4.5
50	240.000	5.0
	188.000—516.000	4.0—7.0
50	average 296.000	average 5.2

The majority of normal individuals show, as in Table I, below 300,000 platelet count. The lowest platelet count is 188,000, the highest, 516,000 and the average, 296,000. It appears to be certain, judging from these figures, that there is some relation between platelet count and the time of bleeding. Speaking in general, though there are some exceptions, the lower the platelet count is, the longer the bleeding time, and the higher the platelet count, the shorter the bleeding time. The result is in accordance with Duke's report. The exceptions and irregularities found in the table are probably due to other factors which influence the bleeding time, such as the amount of fibrinogen or something else which we cannot determine.

BLEEDING TIME AND PLATELET COUNT IN CATATONIC DEMENTIA PRÆCOX.

The bleeding time and platelet count in catatonics together with hemocytological findings are tabulated as follows (see Table II):

TABLE II.

No.	Name.	Age.	Dur.	Hgb.	Red count.	W. C.	Eosi.	Poly.	Lym.	Mono trans.	Baso.	Platelets	B. T.
1	S. S.	23	5Y	33	5,216,000	7,200	3.0	69.3	24.0	3.0	0.7	723,000	3.0
2	J. D.	29	7Y	79	5,524,000	8,520	2.0	64.3	25.0	8.7	0.0	578,000	3.0
3	T. E.	30	11Y	75	6,120,000	6,340	5.0	54.7	34.0	6.3	0.0	372,000	4.5
4	G. M.	52	4Y	80	5,931,000	7,140	1.0	68.0	26.7	4.0	0.3	376,000	4.0
5	A. H.	41	3Y	80	4,642,000	9,980	6.7	59.0	29.0	5.0	0.3	368,000	4.0
6	N. R.	25	6m	95	5,200,000	7,330	4.0	58.3	31.7	6.0	0.0	490,000	3.0
7	I. R.	25	4Y	80	4,936,000	10,800	1.0	67.0	25.3	6.7	0.0	622,000	3.5
8	C. C.	25	7Y	80	6,220,000	8,500	12.0	50.0	30.0	7.0	1.0	646,000	3.0
9	J. B.	23	4Y	79	4,172,000	16,000	5.0	59.0	29.0	6.7	0.3	480,000	3.5
10	E. C.	37	15Y	80	5,840,000	7,600	10.0	46.3	38.0	5.0	0.7	680,000	3.0
11	T. C.	45	20Y	70	4,132,000	5,520	9.7	47.0	38.3	5.0	0.0	384,000	4.0
12	J. K.	32	6m	90	4,872,000	10,560	7.7	55.3	27.7	8.3	1.0	644,000	3.5
13	C. M.	33	7Y	85	1,408,000	11,520	1.3	68.3	19.7	10.3	0.3	448,000	3.5
14	E. O.	65	2Y	65	4,742,000	9,640	1.3	76.3	18.7	3.3	0.3	792,000	2.5
15	B. F.	18	3Y	75	5,504,000	9,200	0.3	25.7	56.7	17.3	0.0	612,000	3.0
16	R. O.	27	11Y	85	4,872,000	8,320	1.7	60.0	29.7	7.7	1.0	584,000	4.0
17	J. M.	59	32Y	90	7,080,000	5,880	12.0	52.7	26.0	8.7	0.7	698,000	2.5
18	S. G.	30	1Y	95	5,464,000	8,040	3.0	69.3	23.0	4.7	0.0	542,000	3.5
19	M. C.	38	15Y	80	6,040,000	7,440	9.3	46.3	37.7	5.0	1.7	640,000	3.0
20	J. G.	27	9Y	80	5,400,000	10,760	5.0	55.0	32.3	7.0	0.7	680,000	3.0
21	A. H.	41	5Y	85	4,264,000	6,320	4.0	55.3	33.3	6.3	1.0	732,000	2.5
22	R. K.	22	6m	85	4,616,000	8,800	2.3	44.7	43.7	8.3	1.0	640,000	3.5
23	M. G.	44	24Y	75	5,700,000	8,700	6.7	54.3	32.3	5.3	1.3	420,000	3.5
24	R. B.	21	6m	85	5,120,000	8,360	2.7	70.0	24.0	2.3	1.0	564,000	3.0
25	B. F.	26	7Y	75	5,360,000	9,640	0.7	57.3	32.0	9.3	0.7	656,000	3.0
26	A. H.	20	3Y	75	6,384,000	8,800	4.0	60.7	28.3	6.7	0.3	520,000	3.5
27	E. H.	29	3Y	75	5,536,000	8,320	1.0	54.7	32.0	12.3	0.0	480,000	3.5
28	M. M.	26	7Y	80	4,960,000	7,480	3.0	65.3	24.7	6.3	0.7	684,000	3.5
29	E. S.	15	1Y	85	7,725,000	10,280	1.3	64.0	24.7	9.7	0.3	648,000	3.5
30	C. M.	20	1Y	80	4,928,000	9,210	3.3	66.3	25.0	5.0	0.3	568,000	3.5
31	M. E.	24	3Y	75	4,816,000	9,300	2.7	59.7	28.3	9.3	0.0	712,000	2.5
32	D. B.	29	6Y	80	4,560,000	11,960	2.0	75.0	20.3	2.3	0.3	532,000	3.5
33	F. F.	31	2Y	85	4,688,000	10,880	4.0	59.7	31.0	5.0	0.3	440,000	4.0
34	H. H.	32	6m	75	4,800,000	8,080	7.0	54.3	34.7	4.0	0.0	396,000	4.0
35	L. B.	26	2Y	73	4,448,000	7,280	1.3	59.6	29.4	8.3	1.3	676,000	3.0
36	B. K.	29	6m	70	3,740,000	9,680	1.0	57.6	34.0	6.7	0.3	564,000	3.5
37	A. C.	31	1Y	70	4,730,000	7,850	5.0	52.7	33.0	9.0	0.3	632,000	3.0
38	G. D.	36	1Y	78	5,640,000	10,340	2.7	55.7	32.0	9.3	0.3	484,000	3.5
39	E. H.	33	12Y	80	5,394,000	8,760	4.0	55.0	28.3	12.0	0.7	562,000	3.0
40	F. R.	26	3Y	75	4,860,000	9,320	4.7	68.3	24.3	2.0	0.7	776,000	3.5
41	E. R.	34	7Y	80	4,940,000	8,070	11.0	53.0	27.3	7.7	1.0	496,000	3.0
42	L. H.	35	1Y	88	6,820,000	7,800	3.0	58.0	31.7	7.0	0.3	459,000	3.0
43	R. C.	30	21Y	85	5,260,000	9,940	2.0	70.3	23.7	4.0	0.0	576,000	3.5
44	A. R.	28	4Y	75	5,260,000	8,900	7.0	59.3	25.0	8.0	0.7	544,000	2.5
45	R. N.	40	2Y	80	5,280,000	8,200	2.0	63.7	24.0	10.0	0.3	588,000	3.0
Average.....				80	5,248,000	9,000	6.6	59.0	27.0	7.0	0.5	573,000	3.3

The bleeding time varies from 2.5 to 4.5 minutes, the majority being under 3.5 minutes (38 out of 45) and the average 3.3 minutes. Six cases show a bleeding time of 4 minutes which lies at the lower limit of the normal. Only one case presents 4.5 minutes' bleeding time which is slightly above the lower limit of normal but not exceeding the normal average (5.2 minutes).

Thus the bleeding time on catatonic dementia præcox is found to be decidedly lessened, this fact being in accordance with the findings of Hauptmann, who discovered the shortened coagulation time in catatonics.

How is this peculiar condition to be explained? Can there be some connection between this and the platelet count?

The blood platelets in the catatonics are exceedingly increased, numbering from 368,000 to 792,000. Five out of 45 cases show the platelet count from 300,000 to 400,000; 9 cases from 400,000 to 500,000; 12 cases from 500,000 to 600,000; 14 cases from 600,000 to 700,000 and 5 cases from 700,000 to 800,000. Even the lowest count of 368,000 corresponds to the higher count of the normal.

This finding may explain the peculiarity of the bleeding time above mentioned. Although there are some writers who do not believe in the immediate relationship between the bleeding time, coagulation time and the platelet count the majority are of the opinion that the retarded coagulation time is apt to be found in the decreased platelet count. The writer's preliminary tests on normal individuals revealed the same relation. It seems to the writer, therefore, to be justifiable in concluding that "the shortened bleeding time in catatonic dementia præcox is due to the abnormally increased number of blood platelets."

As has already been mentioned in the introduction the hypofunction of the thyroid gland has been known to show a shortened coagulation time. In order to know the relationship between the hypofunction of thyroid and catatonic dementia præcox, three cases of myxedema, and two cases of cretinism were studied. The result is shown in Table III.

BLEEDING TIME AND PLATELET COUNT ON MYXEDEMA AND CRETINISM.

The bleeding time in myxedema and cretinism is found to be shortened apparently being much shorter than that of the catatonics. It varies from 2.5 to 3.5 minutes, the average being 2.9 minutes. The platelet count is also very high; the lowest being 480,000, the highest 904,000 and the average 640,000. The relation between the platelet count and the bleeding time is exactly the same as in catatonics. Here the bleeding time is found to be shorter than that of the catatonics, and the platelet count is accordingly much higher than that of the catatonics. The question as to why the coagulation time in myxedema is shortened can also be explained by the increased number of the platelets.

TABLE III.

No.	Name.	Age.	Dur.	Hgb.	Red count.	W. C.	Eosi.	Poly.	Lym.	Mono trans.	Baso.	Plate lets.	B. T.
1	J. A.	60	10y	50	3,990,000	7,100	8.0	43.0	39.0	9.7	0.3	480,000	3.0
2	S. C.	55	18y	70	4,100,000	7,200	6.0	52.0	31.7	10.0	0.3	610,000	3.0
3	S. B.	66	3y	65	3,950,000	6,980	4.7	58.7	32.0	4.3	0.3	664,000	2.5
4	S. B.	70	...	65	4,220,000	6,400	3.0	48.0	40.0	8.3	0.7	904,000	2.0
5	C. O.	52	49y	65	4,100,000	8,100	2.0	36.7	45.0	15.3	1.0	542,000	3.5
Average.....		63			4,070,000	7,150	4.6	47.7	37.5	9.5	0.5	640,000	2.9

But how do the blood platelets increase in these diseases? We cannot give an answer to this question at the present time, because of our uncertain knowledge of the nature and the origin of the blood platelets. However we will try to discuss the nature of the catatonic dementia præcox basing the discussion on the facts described above and some other examinations made for this problem.

COMMENT.

The resemblance between the hypothyroidism and the catatonic dementia præcox is more pronounced than mentioned above. Kraepelin suggested some etiological relationship between thyroid disease and dementia præcox. Lundborg mentioned the resemblance between the dementia præcox on one hand, and the myoclonia and tetany on the other hand, and explained it by the same underlying disturbance which he thought was the alteration of the thyroid and the parathyroid gland. Some writers, however, consider the dysfunction of the thyroid gland to be a secondary

one, caused by the primary disturbance of the internal secretion of the sexual gland (Lomar, Abderhalden, et al.).

The animal experiment (Blum, v. Eiselsberg, Biedl, et al.) proved that after the extirpation of the thyroid gland the animal shows not only the somatic changes but also the mental changes, which resemble to a larger extent those of the catatonic dementia præcox.

Very interesting is the recent discovery of Schmidt, of absence of the increase of blood pressure after the administration of adrenalin in catatonics. This observation would suggest the hypofunction of the thyroid gland in catatonics.

According to authors, in myxedema the blood shows a decrease of the red cells, and especially of the hemoglobin. The leucocytic formula is altered, consisting in mononucleosis and mostly in hyper-eosinophilia. (Bruce and Engel, Falta et al.). In cretinism the hemoglobin content is for the most part reduced, more than the number of the erythrocytes and the number of the leucocytes is increased. The differential count of these shows an enormous reduction, of the polymorphonuclear neutrophiles and a corresponding increase of the mononuclear cells. The writer's observation of a few cases of myxedema and cretinism is in accordance with that of the early writers. In myxedema the erythrocytes and hemoglobin content is reduced. The number of the leucocytes is slightly subnormal. The differential count shows some mononucleosis and well-marked eosinophilia. Two cases of cretinism show about the same relation as the myxedema. The hemoglobin content is 65 per cent in both of the cases, the red count being 4,200,000 and 4,120,000 respectively. The mononucleosis is more marked than in myxedema.

The authors' observations on blood formulæ in catatonic dementia vary. Schultz described the capillary erythrosthesis as one of the symptoms of the stuporous condition of the catatonic dementia præcox. Itten and others found the same condition. In this present study, the writer found an increase of the erythrocytes in 53 per cent of the cases studied and this condition is regarded as erythrosthesis. The number of the leucocytes seems to vary according to the condition of the patient. Thirty-two cases of the writer's observation showed increase in white cells, nine of these presenting a white cell count of over 10,000 per c. mm.

The differential count of the white cells is differently given by various authors. According to Krueger the catatonic dementia præcox should show in less than half of the cases (44 per cent), an absolute increase of white blood cells. A relative increase of lymphocytes was observed in one-third of the cases and a well-marked eosinophilia was found in three-quarters of the cases.

Itten summarizes his findings as follows: The blood picture of the schizophrenia varies with the condition of the patient. In most cases, it may be said, that the improvement is accompanied by the decrease of mononuclear and the increase of polynuclear (neutrophilic and eosinophilic) cells while the progress of the disease is on the contrary attended by mononucleosis with corresponding decrease of neutrophilic and often of the eosinophilic cells. Chronic cases of all groups show in about four-fifths of the cases, lymphocytosis and eosinophilia. The latter condition, together with the frequent finding of a status thymicolymphaticus would suggest the probability of the pathologic function of the internal secretory glands.

Zimmermann observed, in dementia præcox, almost always a relative lymphocytosis. Nine-tenths of the cases presented an increase of mononuclear cells and transitional forms. In two-thirds of the cases a well-marked eosinophilia was shown. The increase of these lymphocytes, mononuclears, and eosinophiles caused a relative decrease of the neutrophilic cells whose number in 95 per cent of the cases was found to be lower than the normal.

Renaudie found in the catatonic forms, recent or of long standing, the number of white cells to be normal with a diminution of the polynuclears and an intense augmentation of the mononuclears, the lymphocytic formula being altered.

In the writer's study, the lymphocytosis is shown in 69 per cent of the cases, of which 44 per cent is accompanied by absolute leucocytosis. The mononuclears and the transitional forms are increased in 67 per cent and the eosinophilia is observed in 49 per cent of the cases studied. The result is in accordance with the majority of the former writers. The important feature of the hemocytological changes consists thus in lymphocytosis, mononucleosis and eosinophilia.

The hematological study also points toward the remarkable resemblance of catatonia to hypothyroidism. It must be mentioned, however, that this peculiar blood picture is found not only

in catatonics and hypothyroidism but also in most of the disturbances of the internal secretory glands. A number of the writers attribute this peculiar blood formula of catatonics to a disturbance of a ductless gland. However, as to which of these organs is affected opinions are divergent.

Not only the physical symptoms mentioned above, but also the mental would indicate the similarity of the catatonic dementia præcox and the hypothyroidism. The progressive retardation, and the difficulty in the mental activity in myxedema correspond to the restraint and blocking of catatonics. The simplicity and the stupidity of the mind is common to both diseases. The frequent symptoms of irritability, resistiveness and negativism, also a confused condition with all kinds of hallucinations, and delusions are found in both diseases.

With a whole array of similarities thus stated, can the catatonic dementia præcox be regarded as the result of hypofunction of the thyroid gland? There are quite a few facts which oppose this assumption. The writer will point out some of the authors' opinions and his own findings.

Bleuler denied the intimate etiological relationship between catatonic dementia præcox and the hypofunction of the thyroid gland, because of the ineffectiveness of the thyroid treatment, and because of the fact that just as many catatonics are found in "Kropf" district as in the seashore.

While Berkley reported 8 cases of catatonic dementia præcox recovered by a partial thyroidectomy and jodlecithin treatment, Kanavel and Pollock reported a negative result from a similar operation and treatment on 12 cases of catatonic dementia præcox. Van der Schleer's experiment proved that of 7 cases of catatonia, 2 fresh cases recovered, 2 long standing cases improved, and the rest remained unchanged.

The histopathological changes found by various writers showed the thyroid gland to be most often normal. The writer also studied the thyroid gland in four cases of young catatonic patients who died of bronchopneumonia, but no recognizable alterations could be demonstrated.

These facts indicate, at least, that the myxedema and catatonic dementia præcox are quite different diseases in certain respects, and cannot be explained simply by the diminished functions of the thyroid gland.

Is the disturbance of the thyroid in catatonics a hypofunction or a dysfunction, which resembles to a larger extent the hypofunction, but differs from it? In order to answer this question the sensitiveness of the thyroid gland in catatonics was tested. Harrower's method for testing the thyroid function was applied. The test consists of giving definite and increasing doses of thyroid extract, with a suitable inert excipient, in a uniform and routine manner, while a careful study is made of the pulse, and any other symptoms which may occur. The reaction of the patients to this administration of thyroid extract varies, depending upon the factor that we are attempting to discover. In apathetic hypothyroid cases, the pulse figure remained unaltered. In the normal individual the pulse rate increased during the administration and was followed by a rapid decrease on the day after the withdrawal of the drug. In hyperthyroidism the average pulse rate is somewhat higher, and there is more irregularity than normal, and in the administration of the thyroid extract the pulse increases more rapidly and becomes higher than in the normal. The removal of the medicine is not followed by a rapid fall in the pulse but it remains high on the day after and the second day after.

Twelve typical stuporous cases of catatonics were tested by this method. Eight cases showed normal reaction for this test while one presented a typical pulse figure of hypofunction and three revealed a hyperfunction. The test seems, to the writer, to be fairly accurate for the purpose of showing the functional activity of the thyroid. Although 12 cases may not be sufficient to settle the question under discussion, it seems to the writer to be reasonable to think that it is not a simple hypofunction with which we are dealing in catatonics, but it is a delicate functional disturbance which shows in many respects a similar picture to the hypofunction. The reason why the simple thyroid treatment could not help the condition can be explained by this assumption.

As to the nature, and the origin of this thyroideal dysfunction, the writer has no definite ideas; neither does he know whether or not this dysfunction occurs secondarily, following a disturbance of some other secretory glands. Even the primary alteration of the central nervous system would give an altered function in delicate organs like ductless glands. However, the fact that no other diseases of the central nervous system show so marked

a resemblance to a thyroideal hypofunction as does the catatonic dementia præcox, would probably favor the endocrinal origin.

The thyroid therapy when combined with some other treatment and well regulated will perhaps permit a more favorable prognosis of the catatonic dementia præcox.

The writer is indebted to the Messrs. S. Edgerton and T. Harrold, student interns from Johns Hopkins Medical School, whose assistance in hematological study enabled him to complete the report.

DISCUSSION.

DR. FRANK G. NORBURY.—There is one thing in this paper which suggests to me a question: I should like to ask whether there has been any relation in his study of function, between venous blood studies and capillary blood studies, as regards blood platelets.

DR. DONALD GREGG.—It is interesting to notice that there are two papers on the program this evening, the first of which suggests a possible relationship between dementia præcox and hypothyroidism because of the platelet count, while a second suggests a possible relationship between hyperthyroidism and dementia præcox because of the sugar tolerance. We cannot very well have dementia præcox due to both hyper- and hypothyroidism. I should like to ask one question of Dr. Uyematsu: Have you followed through with platelet counts the condition of one individual with the idea of finding out whether the platelet count varied from time to time with a change in the individual's condition? If the platelet counts were made upon different individuals in the same general condition, it seems to me that the results indicate a blood finding in a certain stage of a diseased condition rather than having any significance of diagnostic importance as to the disease itself. For example: I believe there is evidence enough to show in a desiccated condition there is a change in the constituents of the blood, and inasmuch as catatonic præcox cases are often in a desiccated condition, possibly the platelet count signifies a need of fluids rather than dementia præcox.

DR. UYEMATSU.—For the first question: I have taken blood from the lobe of the ear, but before I started my research I took the venous blood from the vein of the arm, and I found increased platelets and shortened coagulation time. I think the bleeding time tested by the ear in this study was the same value.

The second question, as to the condition of the patient: I did 45 cases of typical stuporous catatonic cases, because these are easily differentiated from other forms. Of course the bleeding time differed according to the condition of the patient, but I might say in stuporous typical catatonic studies this is true.

REACTION IN DEMENTIA PRÆCOX TO THE IN- TRAVENOUS ADMINISTRATION OF NON- SPECIFIC PROTEIN.*

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In view of the tendency noted in dementia præcox for remission following acute febrile infections,¹ it was deemed that it might prove of some value to study the reaction, from this standpoint, in a group of such cases, to the intravenous exhibition of non-specific (bacterial) protein, which, it has been determined, exerts much the same general constitutional effect, and, being wholly controllable, may be regarded as essentially danger free. This was done somewhat in extenso, so as to allow for the possibility of added contribution to the general systemic effect of foreign protein, parenterally introduced, a question which has, as yet, been by no means completely settled. Such a study was regarded as of especial interest in view of the contradictory results reported by certain workers with reference to the response, in dementia præcox, to the subcutaneous administration of sodium nucleinate, a non-bacterial protein which is known to induce hyperthermia and leukocytosis. Thus Itten² and Kraepelin,³ utilizing this reagent, were absolutely unable to detect any evidence suggestive of psychic amelioration, while Donath⁴ claims definite improvement in eight, and recovery in four, of a series of fourteen cases, and Lundval,⁵ employing a solution containing sodium nucleinate, arsenious acid and hetol, reports apparent recovery in six of eighteen cases.

PROCEDURE.

In this investigation, a series of seven male cases was studied (Table I), including well-marked representatives of the four

TABLE I.—CASES.

Case.	Number.	Age.	Sex.	Type.	Years duration.	Stage.
1—C. S.	18,070	30	Male.	Paranoid.	1	A.
2—V. H. M.	18,266	26	Male.	Hebephrenic.	3	A.
3—L. H.	18,374	20	Male.	Hebephrenic.	4	A.
4—H. S.	16,702	28	Male.	Hebephrenic.	10	B.
5—Z. F. A.	17,686	35	Male.	Simplex.	5+	B.
6—A. W.	13,295	35	Male.	Hebephrenic.	14	C.
7—G. T.	7,707	56	Male.	Catatonic.	22	C.

* From the Kalamazoo State Hospital, Kalamazoo, Michigan.

primary types of dementia præcox, all of whom were otherwise clinically negative.

The cases were, in addition, so selected as to render possible a survey over patients in three successive stages in the progression of the disease. Thus, the cases included under A were those of relatively brief clinical duration, showing confusion and definite lack of adjustment, *i. e.*, acute phase; the cases included under B were those of longer duration, somewhat adjusted, and showing a certain degree of deterioration, *i. e.*, subacute or chronic phase; and the cases included under C were those of very long duration with profound deterioration, *i. e.*, terminal phase.

The bacterial protein used was typhoid vaccine (Parke-Davis) which has apparently come to be regarded as the agent of choice in general non-specific protein therapy.* The material was administered intravenously, as indicated (Table II) in two succes-

TABLE II.—INJECTION SCHEDULE.

Course 1.		Course 2.*	
Date.	Dosage.	Date.	Dosage.
I-11.....	500 mil.	2-17....	500 mil.
I-15.....	750 "	2-19....	500 "
I-20.....	750 "	2-22....	750 "
I-24.....	I bil.	2-24....	750 "
I-27.....	I "		
I-29.....	I "		

* Cases 1 and 4 omitted from this course.

sive courses, of six and four injections, respectively, with an interval of nineteen days. The initial dosage was 500,000,000 killed bacilli which was gradually increased to 1,000,000,000, the generally recognized therapeutic maximum. The individual injections, in each course, were made at intervals of from two to five days, the vaccine being delivered from a regulation tuberculin syringe and care being taken to discharge the material very slowly (one to two minutes).

RESULTS.

The general clinical response was essentially as noted, in non-psychotic cases, by Cowie and Calhoun⁷ and others, thus malaise, occasional chill, headache, hyperpyrexia, and leucocytosis. The temperature (rectal) showed, uniformly, a marked and abrupt rise (Table III) of from 2° to 5° F. which seems to have decreased

TABLE III.—TEMPERATURE AND LEUCOCYTIC REACTION.
FIRST COURSE.

Date.	1-10-21.			* 1-11-21.			1-12-21.			1-13-21.			1-14-21.			* 1-15-21.			1-16-21.		
	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.
	6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.	
<i>Case.</i>																					
1—C. S. . . .	98.6	99.2	11,500	98.4	103.2	17,300	102.0	99.0	8,500	98.6	100.0	9,900	100.0	99.0	6,500	98.6	101.6	12,500	100.0	98.6	....
2—J. H. M. . .	99.0	98.0	10,400	98.8	104.0	4,800	103.0	101.0	11,000	100.6	100.0	10,900	99.6	98.6	11,300	98.6	104.2	8,400	100.2	98.0	....
3—L. H. . . .	98.6	99.6	7,800	98.8	101.8	9,000	98.6	100.0	5,400	99.6	98.8	5,900	99.0	98.6	4,400	98.6	100.6	9,600	100.6	98.8	....
4—H. S. . . .	98.6	99.0	11,800	99.2	103.4	7,200	102.2	100.4	9,600	98.6	99.0	12,500	98.6	98.6	5,500	98.6	103.0	9,400	102.6	99.0	....
5—Z. F. A. . .	98.6	98.6	10,000	98.6	98.2	7,700	98.6	99.9	8,500	98.6	99.0	6,700	98.6	99.0	9,100	99.2	100.8	6,000	103.0	101.0	....
6—A. W. . . .	99.0	98.8	9,000	98.6	102.4	17,200	101.4	100.6	9,500	100.0	98.0	8,200	98.6	98.6	6,300	98.6	101.0	9,000	99.6	98.6	....
7—G. T. . . .	99.0	....	12,200	100.0	100.0	10,700	101.2	100.0	11,400	99.0	100.2	5,700	98.6	98.6	4,500	98.6	101.0	6,100	101.6	98.8	....
Date.	1-17-21.			1-18-21.			1-19-21.			* 1-20-21.			1-21-21.			1-22-21.			1-23-21.		
	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.	Temp.		Leuc.
	6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.		6 A. M.	4 P. M.	
1—C. S. . . .	98.6	98.8	13,400	98.6	98.4	10,300	98.6	98.4	6,300	100.0	98.8	15,400	98.6	98.8	13,200	98.6	99.2	13,000	99.0	98.8	....
2—J. H. M. . .	98.6	98.4	8,100	98.6	98.4	7,600	98.6	98.4	5,900	98.6	101.4	18,300	98.6	98.6	11,000	98.6	98.0	8,800	98.4	98.8	....
3—L. H. . . .	98.6	99.0	6,000	98.6	98.8	3,800	98.6	98.4	9,900	98.6	102.0	12,200	99.6	98.6	6,600	98.6	98.6	4,600	98.6	98.4	....
4—H. S. . . .	98.6	98.6	8,600	98.6	98.8	10,000	98.6	98.8	10,400	98.6	102.0	17,500	99.0	98.6	11,500	98.6	98.8	9,000	98.4	98.8	....
5—Z. F. A. . .	101.0	100.0	8,400	98.6	99.6	7,900	99.6	100.4	7,800	99.2	102.0	5,800	98.6	98.6	9,800	98.6	98.0	6,900	98.6	99.2	....
6—A. W. . . .	98.6	97.8	7,800	98.6	98.0	12,500	97.0	98.6	7,500	98.6	100.6	11,800	98.6	98.4	8,900	98.6	98.6	11,000	98.6	96.8	....
7—G. T. . . .	98.6	98.6	6,300	98.6	99.0	8,800	98.6	98.8	15,800	98.6	100.0	10,900	99.0	98.8	7,000	98.6	99.0	8,000	98.4	98.8	....

* Injection days.

TABLE III.—TEMPERATURE AND LEUCOCYTIC REACTION.—Continued.
FIRST COURSE.—Continued.

Date.	* 1-24-21.		1-25-21.		1-26-21.		1-27-21.		1-28-21.		* 1-29-21.		1-30-21.	
1—C. S...	98.0	100.0	14, 100	98.6	98.6	8, 800	98.4	99.0	10, 000	98.8	99.2	22, 000	98.2	99.0
2—J. H. M.	98.6	100.2	12, 500	98.6	98.6	9, 000	98.4	96.6	8, 600	98.0	99.6	10, 100	98.6	98.6
3—L. H...	98.4	102.6	15, 200	98.6	98.0	6, 300	98.2	98.6	6, 800	98.6	99.0	10, 700	98.4	99.6
4—H. S...	98.4	100.8	20, 800	98.6	98.6	9, 600	98.6	98.0	10, 700	98.6	99.0	15, 800	98.2	100.0
5—Z. F. A.	98.6	100.0	12, 800	98.6	97.4	17, 200	98.0	96.6	6, 800	98.2	100.4	8, 400	98.4	98.6
6—A. W...	98.0	100.8	13, 400	98.0	98.0	8, 700	98.0	98.2	6, 700	98.0	100.0	9, 900	98.0	99.6
7—G. T...	98.4	101.0	15, 300	98.6	98.4	8, 000	98.0	98.6	7, 700	98.2	99.4	8, 000	98.2	98.6

SECOND COURSE.

Date.	2-15-21.		2-16-21.		* 2-17-21.		2-18-21.		* 2-19-21.		2-20-21.		2-21-21.	
2—J. H. M.	98.2	10, 000	98.2	98.8	102.9	98.2	98.6	98.6	102.8	7, 800	99.0	6, 800	98.2	98.8
3—L. H...	98.4	5, 200	98.6	99.0	101.2	98.2	98.4	98.4	101.0	9, 900	98.4	7, 900	98.4	98.4
5—Z. F. A.	98.8	8, 000	98.4	98.8	98.8	98.4	98.0	98.0	101.0	3, 700	98.4	6, 600	98.4	99.0
6—A. W...	98.2	11, 600	98.2	99.0	101.8	98.2	98.6	98.8	102.8	9, 600	98.2	6, 700	98.6	98.8
7—G. T...	98.6	9, 800	98.6	99.0	100.2	98.4	99.6	98.4	101.2	7, 600	98.6	6, 300	98.4	98.4

Date.	* 2-22-21.		2-23-21.		* 2-24-21.		2-25-21.	
2—J. H. M.	98.4	8, 400	98.6	98.6	101.2	98.4	98.2	99.0
3—L. H...	98.6	10, 700	98.6	98.6	100.4	98.4	98.0	99.6
5—Z. F. A.	98.2	12, 100	98.6	98.6	103.4	98.4	101.0	98.6
6—A. W...	98.6	10, 800	98.6	98.6	102.4	98.4	98.0	98.8
7—G. T...	98.6	10, 800	98.6	98.6	100.6	98.4	98.2	98.6

* Injection days.

progressively as the number of injections was increased. There was also remarked, as indicated, a very definite leukocytosis (Table III) which, however, seems to have been somewhat lower than observed by Cowie and Calhoun.* It seems, too, from Table IV, in which the initial count was made 48 hours following the first injection of the second course, that the preliminary leucopenia described by Cowie and Calhoun* was, in our cases, consistently

TABLE IV.—CHRONOLOGIC ANALYSIS OF LEUCOCYTIC REACTION.

Time.	Leucocyte counts.						
	$\frac{1}{2}$ hour before inject.	$\frac{1}{2}$ hour after inject.	1 hour after inject.	2 hours after inject.	3 $\frac{1}{2}$ hours after inject.	5 $\frac{1}{2}$ hours after inject.	7 $\frac{1}{2}$ hours after inject.
Case.							
2—J. H. M..	6,400	10,800	7,200	9,199	7,500	7,800	11,400
3—L. H.....	6,700	7,000	5,600	11,400	9,800	9,900	10,700
5—Z. F. A..	3,800	8,000	3,700	8,200	8,500	3,700	3,200
6—A. W....	7,000	11,000	7,900	12,400	15,100	9,600	9,000
7—G. T.....	5,100	7,100	7,400	13,500	8,800	7,600	6,600

Time.	Leucocyte counts.						
	9 $\frac{1}{2}$ hours after inject.	12 hours after inject.	24 hours after inject.	33 hours after inject.	48 hours after inject.	55 hours after inject.	72 hours after inject.
Case.							
2—J. H. M..	10,200	10,500	7,800	6,800	5,800	7,400	8,800
3—L. H.....	7,200	6,700	5,400	7,900	3,000	9,000	8,700
5—Z. F. A..	8,200	7,200	6,700	6,600	2,600	5,600	5,400
6—A. W....	14,600	14,800	7,800	6,700	5,700	8,000	10,800
7—G. T.....	7,000	7,200	6,700	6,300	6,900	7,600	9,200

preceded by a short period of mild leucocytosis, and in addition, that the second or essential leucocytic period, which seemed to reach its acme in approximately 12 hours was succeeded by a phase of gradual reduction with the establishment of definite leucopenia in about 48 hours, following which there seemed to be gradual return to the normal level.

In regard to the effect upon the red cells (Table V), there was uniformly noted a severe reduction in the total red count, so much so that it was deemed advisable to drop two of the cases (1 and 4) from the second course. This reduction was a prolonged nature,

TABLE V.—BLOOD PICTURES.

Case.	Preceding first course.							On completion of first course.										
	Erythrocytes.	Leukoocytes.	Poly. Neutro.	Large Lymph.	Small Lymph.	Transitional.	Mycelocytes.	Eosinophiles.	Basophiles.	Erythrocytes.	Leukoocytes.	Poly. Neutro.	Large Lymph.	Small Lymph.	Transitional.	Mycelocytes.	Eosinophiles.	Basophiles.
1—C. S.	3,960,000	11,500	74	8	25	6	0	0	0	3,570,000†	8,200	66	12	11	7	0	4	0
2—J. H. M.	4,480,000	10,400	55	12	25	6	0	2	0	3,490,000	7,500	62	4	26	8	0	0	0
3—L. H.	5,280,000	7,800	73	5	17	4	0	1	0	3,500,000	4,900	75	3	16	3	0	3	0
4—H. S.	4,240,000	11,800	65	9	20	2	0	4	0	3,570,000	8,400	59	13	16	2	0	4	0
5—Z. F. A.	5,680,000	10,000	69	7	14	4	0	5	0	4,200,000	7,100	77	3	13	4	0	2	1
6—A. W.	4,740,000	9,000	56	5	32	6	1	0	0	4,050,000	7,400	63	8	24	5	0	0	0
7—G. T.	4,900,000	12,200	73	7	14	5	1	0	0	3,940,000	7,900	75	3	16	5	0	1	0
	Preceding second course.							On completion of second course.										
1—C. S. †....	2,500,000	11,800	63	3	23	4	0	0	1	3,250,000	10,400	73	0	22	4	0	1	0
2—J. H. M.	4,310,000	10,000	80	2	11	6	0	1	0	3,680,000	6,600	79	0	20	1	0	0	0
3—L. H.	4,100,000†	5,200	55	5	32	6	0	2	0	3,560,000	8,300	69	4	26	1	0	0	0
4—H. S. †....	2,860,000*	14,600	73	2	20	3	0	2	0	3,850,000	9,600	75	19	4	0	0	2	0
5—Z. F. A.	4,020,000	8,000	71	4	23	2	0	0	0	4,180,000	7,500	86	2	8	3	0	1	0
6—A. W.	3,270,000	11,600	68	3	27	1	0	1	0	3,630,000	9,000	69	1	28	1	0	1	0
7—G. T.	3,500,000	9,800	71	3	24	2	0	0	0	4,230,000	7,800	59	1	35	2	0	2	1
	8 weeks following first course.																	
1—C. S.	3,840,000	5,100	84	0	10	3	0	3	0									
2—J. H. M.	2,480,000	12,200	78	0	16	1	0	5	0									
3—L. H.	3,470,000	5,200	63	3	24	4	0	4	2									
4—H. S.	3,700,000	8,600	68	1	28	2	0	1	0									
5—Z. F. A.	3,530,000	6,600	60	1	27	6	0	6	0									
6—A. W.	4,000,000	4,000	60	0	28	1	0	0	1									
7—G. T.	3,500,000	5,200	83	0	13	4	0	0	0									

* Many macrocytes, microcytes, and poikilocytes.
† Many platelets.
‡ Omitted from second course.

* Many macrocytes, microcytes, and poikilocytes.

† Many platelets.

‡ Omitted from second course.

persisting in these two cases for at least eight weeks, and in the others for at least four. Increased platelet count, as described by Cowie and Calhoun,⁷ was occasionally noted as well as the appearance in one case, in unusual numbers, of macrocytes, microcytes, and poikilocytes. No frank change, however, was noted as regards white cell type.

Determination of erythrocyte fragility (Butler⁸ as modified by Greenthal,⁹) showed (Table VI) moderate increase in fragility

TABLE VI.—BLOOD FRAGILITY.

Case.	Date.	Fragility curve.	Date	Fragility curve.	Date	Fragility curve
1—C. S....	2-18-21	0112345555	2-25-21	0012355555	3-18-21	0012455555
2—J. H. M.	2-18-21	0001234555	2-25-21	0000123555	3-18-21	0001345555
3—L. H. ...	2-18-21	0001234555	2-25-21	0001235555	3-18-21	0001345555
4—H. S. ...	2-18-21	0001234555	2-25-21	0001234555	3-18-21	0001245555
5—Z. F. A.	2-18-21	0112345555	2-25-21	0001345555	3-18-21	0011355555
6—A. W...	2-18-21	0012344555	2-25-21	0001235555	3-18-21	0000145555
7—G. T....	2-18-21	0012345555	2-25-21	0001234555	3-18-21	0001345555
Normal Curve..		0001234555				

Key: 0—no hemolysis. 2—trace of hemolysis. 4—almost complete hemolysis.
1—faint trace of hemolysis. 3—partial hemolysis. 5—complete hemolysis.

in two cases (1 and 5) and slight increase in two others (6 and 7), which in all cases, except the first, was apparently of but short duration.

Examinations of the urine revealed no evidence suggestive of renal disturbance nor was there indication of essential physical change save for a gradual decrease in weight (Table VII), asso-

TABLE VII.—WEIGHTS.

Case.	Date.	Wt.	Date.	Wt.	Date	Wt.	Date.	Wt.
1—C. S.....	1-7	129	1-14	125	1-21	118	1-28	134
2—J. H. M.....	1-7	115	1-14	112	1-21	114	1-28	119
3—L. H.	1-7	141	1-14	141	1-21	134	1-28	139
4—H. S.	1-7	178	1-14	178	1-21	163	1-28	176
5—Z. F. A.....	1-7	145	1-14	144	1-21	138	1-28	146
6—A. W.....	1-7	118	1-14	112	1-21	114	1-28	114
7—G. T.	1-7	132	1-14	132	1-21	132	1-28	135
1—C. S.....	2-4	133	2-11	133	2-18	133	2-25	133
2—J. H. M.....	2-4	119	2-11	116	2-18	113	2-25	117
3—L. H.	2-4	143	2-11	144	2-18	138	2-25	142
4—H. S.	2-4	181	2-11	182	2-18	180	2-25	185
5—Z. F. A.....	2-4	149	2-11	147	2-18	141	2-25	145
6—A. W.....	2-4	119	2-11	118	2-18	115	2-25	117
7—G. T.	2-4	138	2-11	135	2-18	135	2-25	133

ciated with transient asthenia, which continued until about the midpoint of the first course, soon thereafter reattaining its original level, which was well maintained until the completion of the study and, in fact, in two cases, showed an appreciable increase.

Psychiatrically, there was absolutely no evidence indicative of remission or even transitory improvement although, in certain cases, (A and B types) there was noted for several days, towards the end of the first course, a certain cheerfulness and good humor which might possibly be construed as approximating the euphoria of the second or positive phase, more or less characteristically noted by Petersen,³⁰ as following the administration of non-specific protein. Although it is theoretically conceivable, had treatment been continued over a longer period of time, that definite improvement might have been effected, yet in view of the direct nature of the procedure, the vigor of the reaction and the length of period actually employed, such a possibility seems rather unlikely.

It appears therefore that the results of this study are in general agreement with those of Itten and Kraepelin (*loc. cit.*) and definitely at variance with those of Donath and Lundval (*loc. cit.*). However, as concerns the findings of the authors last mentioned, whose cases were treated and observed over a number of years, due regard must be accorded the fact that much of the apparent improvement remarked, might, possibly, have occurred per se and need not, of necessity, have been specifically induced by the nucleinate injections.

SUMMARY.

It seems, in the dementia præcox cases constituting this series, that no amelioration in psychiatric status was effected as a result of the intravenous administration of non-specific bacterial protein, and that the general constitutional reaction, in these cases, closely approximated that reported as characteristic of non-psychotic individuals, save, that in the former, there seems to have been, additionally, evidence of transient weight-loss, a preliminary leucocytosis period, a late leucopenic period, and a marked persistent reduction in the erythrocyte count with a tendency for increased fragility changes, all of which, upon further study, may be found to be typical of non-psychotic cases as well.

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CONNOTATIONS AS A FACTOR IN THE MENTAL HEALTH OF THE COMMUNITY.

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I.

A few fortnights ago I was called in as friendly counsel regarding a situation which centered around a rapidly developing case of senile dementia. A theological student of promising ability had been forced to leave his studies somewhat prematurely and enter upon active ministerial work upon the death of his father which left him the sole support of his aged mother. He entered into the work of a rather responsible parish with vigor and enthusiasm but after a period of six months began to realize the deteriorating condition of his parent and the additional strain which this progressing condition was placing upon him.

The mother's orientation with respect to place, as well as time, was very defective, demanding an ever-increasing amount of attention. Excessive outbreaks of emotion and general irritability constantly and especially in public were not only trying but at times exceedingly embarrassing. The mother could not be left alone with safety for any length of time and the financial status would not permit of the employment of assistance, either trained or untrained. It was necessary for the son to be in almost constant association with his parent with but little time remaining to devote to the work of his parish.

The mother had slight recognition of her condition and the generally uncomfortable situation which resulted. The son's attitude was very frank and wholesome although in his management of the patient he did not manifest any unusual ability in the handling of psychiatric cases. In attempting to smooth down the emotional storms he had told his mother that unless she "braced up" and "got control of herself" it might become necessary to send her to a state institution. In a way these admonitions produced the desired result, but in a short time apparently became effective in the causation of a worried, fearful state of apprehension which was directed to the matter of commitment. This fretful attitude

became more and more accentuated during the successive steps toward commitment until—but that is the starting point of this study.

During a conference with the son I learned that for several years the family had lived in Wisconsin in the vicinity of a *county lunatic asylum*. The more recent years of residence in Minnesota had been spent within the sphere of influence of a *state asylum*. These institutions with their frankly descriptive appellations had made a deep and unfavorable impression upon the present patient. It was this associative complex which was operative to a large extent in shaping the attitude of the mother toward institutional care. Accordingly arrangements were opened for the care of the patient in the Independence Hospital. The mother readily consented, in fact was eager to go since she had sufficient insight into her condition to realize that scientific supervision would be of benefit. She positively refused to willingly go near an *asylum* but would cheerfully enter a *hospital*. As soon as negotiations of which she was aware were entered into with the hospital her whole conduct, which had been dominated with the asylum reaction until this time, changed for the better and the emotional outbreaks ceased for the time being. Remnants of a certain vague pride also remained and the term *county* and *state* were perhaps as influential in forming her aversion to the institutional names as were the terms *asylum* and *lunatic*. It was partly out of consideration for this barrier of pride—which is rather common as will be seen later—that the affective life became intensified. So the word *state* was omitted from the name of the hospital in all later reference to it and although the patient was aware of the fact that the institution was maintained by the state she was put at ease by the title given it.

This is just one case out of many in which the name of the institution plays a rôle by no means insignificant in determining the patient's conception of the institution and governing his receptiveness to the idea of care within its portals. Such cases as the above could be multiplied several fold, but it is doubtful if their importance can be unduly magnified.

Anyone who has made contracts with mental cases, in a professional capacity or otherwise, on the wards of institutions or in the family circle, can testify to the counteracting effects of the

deplorable connotations bound up with certain terms which are in all too frequent use. The family physician can tell of the dolorific issue in the patient; the lawyer and the conservator know of the hesitancy in selecting an institution with a cognomen wholly or in part unpleasant. The psychiatric social worker comes up against antagonistic attitudes which have their origin in an antipathy to the institutional name and the associations which it carries. The resident psychiatrist is given the opportunity of tracing the delusional and affective structures which the patient erects as a natural reaction upon the wormwood of these chafing connotations and inner meanings.

In almost every phase of the world of commerce a happy term or a respected firm name means much to the success of an organization. Trade names have been copyrighted and capitalized and their use and ownership protected by the courts. The names of marketed products and commercial organizations have been demonstrated time upon time to possess a distinct value that can be measured, or at least estimated, in financial units.

When we turn to the field of mental health we also find that there is a scale of values consequent upon the associative context interwoven with terms which are in the long run synonymous. The relative value of these terms cannot be determined in monetary units as can the value of a trade name for these terms are cardinal in a realm which cannot be evaluated in terms of material things. Mental life and happiness are not to be purchased at any cost; they are to be conserved and developed and valued for their own sake. And especially in this field is it that we find the connotations to be unusually strong and of such a nature as to exert an undesirable influence.

These symbolizations bound up with terms which in the past have been connected with objects now obsolete and repugnant have a very practical bearing upon community mental health. These unfortunate connotations are influential in determining the advance in community mental health in three important phases.

In the first place the attitude of the public in general toward the objects which are perhaps supreme in mental welfare is made sadly destructive by the use of terms which carry with them a rather rank and highly undesirable outer fringe of context. One of the first fruits of the labors of the National Committee for Mental Hygiene is the steady increase in the use of the term

hospital to replace the more overtly descriptive terms which were predominant in this field only a few years ago. The cooperation of the body politic is essential for thorough and comprehensive results to be realized from efforts toward community mental health. This group factor cannot be wholeheartedly contributory so long as a considerable share of the terminology is laden with revolting and entirely unjustified filiations. And in passing it should be noted that those terms which carry the largest number of repugnant and antagonizing connotations are the ones with which the general public is most familiar and which are most productive in determining the group consciousness with reference to the things of mental health.

Consider this group consciousness boiled down, concentrated, and brought into the mental life of one as a vital, burning issue, coloring the entire stream of thought and conduct. Here is found a powerful force working in direct opposition to one of the outstanding aims of constructive mental hygiene. It is what is often found operative in what might be termed psychopathic material. At the one point in these individuals' lives where a wholesome, unbiased, healthy-minded attitude should be held toward the agencies of mental health we see the baneful results of the misconceptions of the ages as they are brought down to the present time in the associative conglomerate of connotations. The exacerbations in the symptomology and the appearance of transient secondary symptoms noticed in the newly admitted patient is frequently due in a large part to these undesirable affective connotations. In the case of voluntary patients undoubtedly these connotations are effective in lessening and delaying the applications. Where legal coercion is used to bring the patient for care and treatment the inner struggle is usually much greater than even the sometimes violent outward signs would indicate. Regardless of whether or not one is a Freudian the therapeutic significance of this emotional intensification is very apparent.

What may be isolated as the third mode of action upon community mental health is, like the second, really a derivative of the first but it is worthy of special consideration because of its direct effects upon the rehabilitation and the welfare of the ill of mind. I refer to the attitude often taken by the relatives and friends toward one who is receiving institutional care. This is

active in the early stages of a case where a considerable hesitancy is shown about arranging for proper care and such a delay may seriously impair or even offset all later remediable measures. After the patient is at last placed in suitable surroundings the matter is not treated with openness, a marked reluctance is manifest toward visiting the patient because of the social connotations of the institutional name and the benefit which is to be derived in a large percentage of cases from properly timed and sincere visits is lost forever. Psychiatric social workers also tell me that they are not infrequently hampered in their work by attitudes taken by patients and relatives and which have root in the connotations of the terminology which in turn almost give justification to the uninitiated for their naive conceptions of work in mental health.

There is a decided need for a knowledge of the actual connotations which are present in present-day terminology as related to community mental health. Such a knowledge would enable one to estimate in a way the manner in which these associations are operative in various practical phases of work in public mental health. With such knowledge available it will also be possible to suggest any needed changes in the terminology which may be discovered. It is the object of this investigation to ascertain the nature and direction of the connotations in a limited number of terms which are in rather extensive use in this field.

There are many problems unique to work in public health which can be pushed nearer to a pragmatic solution by utilizing the methods of applied psychology in solving them. Commercial organizations have found applied psychology a valuable adjunct and it is to be reasonably expected that public health will also find such preliminary procedure a valuable auxiliary. The general approach which will be followed in the present report is that of applied psychology and any claim to originality must be limited to the application of these methods directly to the field of public mental health.

The most imposing bulwarks of the agencies of mental hygiene are the state hospitals for mental diseases. The names of these institutions are the ones with which the general public is most familiar and which are probably most influential in their connotations. The associative values of the various names taken by these institutions are, therefore, the main objective of the present

investigation. Attention will be given only to the connotations of the names found among state hospitals for mental patients. There are several reasons for this limitation. These state institutions care for the bulk of mental patients; their influence also extends over a larger area than is the case with county and private or even municipal institutions. Private institutions are also excluded for the present because of the commercial nature which would attend the application of the findings. Private sanitariums, also, are not usually offensive in the matter of name—it is good business to have a title rich only in pleasant associations. Then, too, it is sort of a Hobson's choice; the present project had to be limited in scope that the task asked from our respondents might not be so difficult and involved as to destroy interest and cooperation.

II.

Before turning to the more empirical aspects of the present problem it is well that we orientate ourselves by a short survey of the development of the nomenclature in this field and acquaint ourselves with the present-day tendencies.

Tables I, II, and III were derived from the available data which gives the names of institutions of this character in full.¹ In Table I the names of the institutions are reduced to the type categories indicated. The horizontal line of data, for example, which extends to the right of "Asylum, Insane" enumerates all institutions in which "Insane Asylum" seems to be the basic phrase. Such names are: State Insane Asylum, Asylum for the Insane, Asylum for Insane Indians, Northern Insane Asylum, etc. The other types enumerated are also considered as basic and the various institutional names placed in the horizontal line indicated by their essential elements. State Hospital for the Insane, for example, in view of our objective, obviously belongs under the category of "Hospital, Insane" rather than "Hospital, State."

¹ Data for 1880, 1890, 1903, and 1910 is from the reports of the United States Census. Data for 1918 is from Pollock and Furbush: *Comparative Statistics of State Hospitals for Mental Diseases, 1918. Mental Hygiene, 1920, 4, pp. 137-191.*

TABLE I.

FREQUENCY OF TYPE NAMES AMONG STATE INSTITUTIONS FOR MENTAL PATIENTS DURING FIVE PERIODS FROM 1880 TO 1918.

Name.	Period.				
	1880	1890	1903	1910	1918
Asylum, Insane.....	25	42	11	14	4
Lunatic	15	16	3	1	1
State .....	..	..	2	5	3
Territorial .....	..	..	1	..	..
(Geog. location).....	..	..	6	..	..
(Name of State).....	..	..	4	2	..
(Name of Town).....	..	..	1	..	..
Total asylums	40	58	28	22	8
Colony, State.....	..	..	1	1	1
Total colonies .....	..	..	1	1	1
Hospital, (Euphonic).....	..	..	3	2	2
(Geog. location).....	..	..	20	..	..
Homeopathic.....	..	..	2	..	..
Insane	25	39	8	44	30
Lunatic	5	7	1	1	1
Mental .....	..	..	1	1	1
Mental disease .....	..	..	..	1	2
Nervous disease.....	..	..	..	1	1
Psychopathic.....	..	..	..	1	1
State.....	..	..	57	69	104
(State name).....	..	..	8	..	2
(Town name).....	..	..	6	2	2
Total hospitals	30	46	106	122	146
Infirmery, State.....	..	..	..	1	1
Total infirmaries .....	..	..	..	1	1
Retreat, for insane .....	..	1	..	..	..
Total retreats .....	..	1	..	..	..
Reformatory, The.....	..	..	..	..	1
Total reformatories.....	..	..	..	..	1
Sanitarium, State .....	..	..	1	1	1
Total sanitariums .....	..	..	1	1	1
Total institutions.....	70	105	136	147	159

Analysis of this data reveals several significant tendencies. Two names, Colony and Infirmery, have come into use fairly recently, the former since 1903 and the latter since 1890. The term Retreat as applied to state institutions has a transitory appearance

in the period ending in 1890. Sanitarium has been introduced into this field since 1890 and is showing some increase in use but not notably significant.

The most pertinent development, however, is in the shifting use of the terms hospital and asylum. In the case of the second term a steady decline in the number, and a much greater decline in

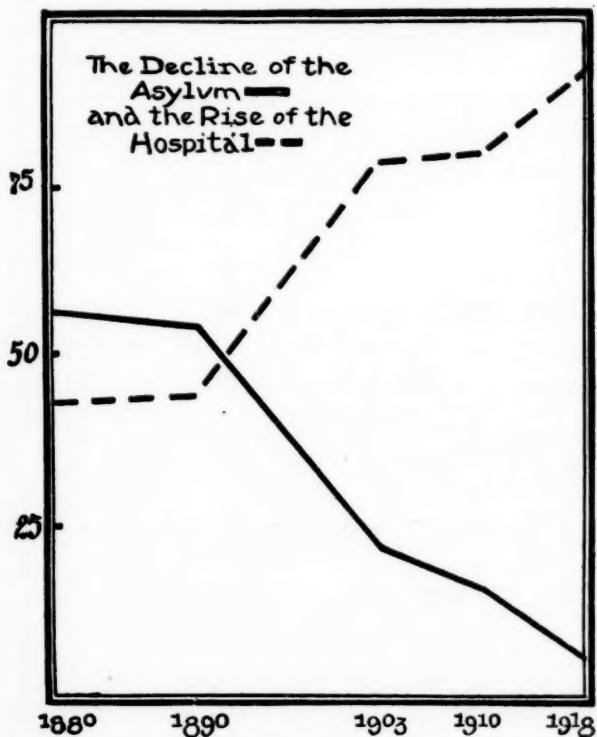


CHART I.

the per cent of institutions using this term as a part of their title is immediately noted. This decline is slight during the first per interim followed by a sudden drop from 55 per cent in 1890 to 20 per cent in 1903. The last two periods also record a decline in the use of this term but not nearly so marked as in the interval mentioned above. If the use of this term continues to diminish at the rate it has the last two periods it will be extinct in about 10

more years.² Reference to the sub-totals in Table I will suffice to indicate that the term hospital is replacing asylum, the curve of its ascent being almost the exact reverse of the decline of the asylum. This is plainly shown in Chart I in which the periods are plotted on the horizontal and the per cent of institutions using the terms charted on the vertical scale which is on the basis of 0 to 100 per cent. In 1880 the distribution of these terms was about equal with a slight preference shown to asylum. At the close of 1918 all but 7 per cent of the institutions bore the name hospital.

A more detailed record of the institutional use of terms is given in Table II. The data for this table were obtained from the same sources as were used in Table I. In this instance, however, each of the major terms were recorded, no attempt being made to retain the type classification as was done in Table I. Insignificant terms such as of, for, the, and, at, etc., were not recorded. The terms have been divided into two groups, the generic and the specific. The generic terms specify the general character of the institution while the specific terms limit this meaning to one particular institution or at a certain place or of a specific function or of a particular nature.³

A marked characteristic to be noted upon even a superficial examination of this table is the abundance of specific terms. On the whole about two specific terms are used to one generic term. The specific terms most in use during the first period were insane, lunatic, state, and the names of states. In 1918 the terms found most in use are state, the names of towns, the names of states, and—strange as it may seem—insane.

The term state is used in both specific and what may be designated as sub-specific ways. For example we find State Hospital and State Insane Hospital. The names of towns, state names, and geographical terms are also used in the two ways mentioned.

² This applies to state institutions only. The decline in the use of this term among county institutions is probably very slight.

³ Any apparent discrepancy between Tables I and II is dissolved by recalling that in Table I the names were recorded under certain type categories. It will also be noted that the data under the generic terms in the present table is made up of the same number of terms found in the sub-totals of Table I.

The term incurable has passed into oblivion in this immediate field⁴ while chronic still persists as does also the term dangerous. During the last three years a slight increase in the use of homeo-

TABLE II.
THE USE OF TERMS IN INSTITUTIONAL NAMES.

Terms.	Period.				
	1880	1890	1903	1910	1918
<i>Generic:</i>					
Asylum	40	58	28	22	8
Colony .....	..	..	1	1	1
Hospital	30	46	107	122	146
Infirmary .....	..	..	..	1	1
Reformatory .....	..	..	..	..	1
Retreat .....	..	1	..	..	..
Sanitarium .....	..	..	1	1	2
<i>Specific:</i>					
Chronic	2	..	1	1	1
Criminal	1	1	2	..	1
Dangerous .....	..	..	1	..	1
Disease .....	..	..	1	2	3
Geog. location	13	23	38	28	30
Government	1	1	..	1	..
Homeopathic	1	1	1	2	3
Incurable	1	1	1	..	..
Indefinite term .....	..	..	3	2	2
Indian .....	..	..	1	1	1
Insane	49	81	20	60	34
Lunatic	19	22	4	2	2
Mental .....	..	..	1	2	3
Nervous .....	..	..	..	1	1
Numbered	2	4	5	5	4
Psychopathic .....	..	..	..	1	1
State	24	46	74	96	129
State name	28	4	22	41	34
Territorial .....	..	3	1	1	..
Temporary	1	..	..	..	..
Town name	14	5	38	62	82

pathic is observed. Psychopathic, and nervous, have appeared since 1903 while mental was already in use by that date. In both

⁴Just recently I passed a "Home for Incurables" in a large center. I must confess that the temperature of my spinal fluid lowered several degrees upon sight of this institutional name engraved in stone, apparently as ineradicable as the afflictions of those within the "home" were assumed to be.

the generic and the specific terms an increase in variety is present in each progressive period. For example in 1880 there were 15 classes of terms in use, in 1903 there were 20 classes and 23 in 1918.

The terms most vital for our consideration are insane, lunatic, and state. Their use is graphically indicated in Chart II in which

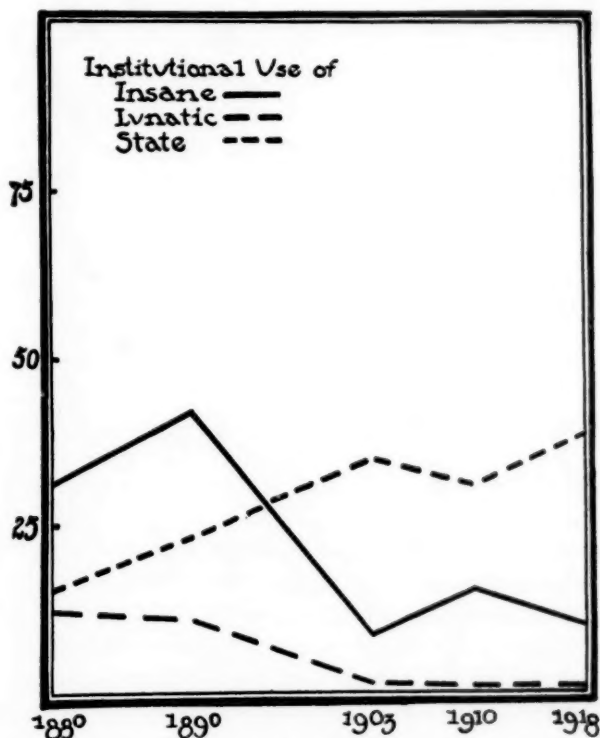


CHART II.

the census periods are again represented on the horizontal scale and the percentages of use on the vertical scale. At the opening period the term insane was over twice as popular as lunatic while state occurred with a slightly greater frequency than lunatic.*

*It should be remarked at this point that in the earlier periods the term state was used almost entirely in a sub-specific sense. It usually appeared in connection with the specific term lunatic or insane while in 1918 the tendency was to use state as the sole specific term.

An increase in the use of the term insane amounting to an absolute gain of 11 per cent is noted in 1890 with a decline of about 1 per cent on the part of lunatic. During this same period state increases 8 per cent.

State continues to rise at about the same rate from 1890 to 1903 while there is a decline on the part of insane and lunatic, especially marked in the former. This decline in the use of insane is followed in the next period by an absolute increase of 6 per cent or a relative increase of almost 50 per cent. This rather unexpected and almost unexplainable finding was checked over institution by institution and was found not to be due to the entry of new institutions but to the change in names of old ones. Whether or not this is due to the source of data for 1903* I cannot

TABLE III.
NUMBER OF WORDS USED IN INSTITUTIONAL NAMES.

	1880	1890	1903	1910	1918
Number of institutions.	70	105	136	147	159
Total terms (Table II).	226	297	350	455	493
Average per name	3.2	2.8	2.5	3.1	3.1

say but I am inclined to favor the view that in the reports for this period a connotative censorship was exercised to a certain extent. One interesting observation to be made from Chart II is that the highest point of the curve for the use of state (1918) falls 3 per cent below the highest point in the curve of the use of insane (1890).

It is apparent from the two charts so far presented that the most definite and marked development in the institutional use of terms in this field has been in the generic terms, asylum having been almost completely replaced by hospital. The development in the case of the specific terms is not quite so steady and definite and prediction in this respect is somewhat precarious.

It has already been noted that about two specific terms are in use for every generic term. In Table III is given the number

* United States Census: Special Reports, Insane and Feeble-minded, 1904. Washington, Government Printing Office, 1906.

of words per institutional name, exclusive of prepositions, articles and connectives. The tendency is seen to be to use around three main words to a title. The periods ending in 1890 and 1903 made use of an average of about two and a half words per name but the more recent tendencies as shown in the data for 1910 and 1918 is to use slightly more than three terms to a name.

Since the length of name is not touched upon in the experimental section it is well to consider this matter in slight detail at this point since it is of no little consequence. While it is not entirely a matter of connotations it may nevertheless be accepted as falling within the province of this work.

Long names are admittedly awkward to handle either verbally or in writing. They require an undue amount of time and attention and generally invite abbreviations and substitutes. Such popularly altered or substituted forms seldom, if ever, better the situation. The very common vulgarism "bughouse," deplorable as it is, among the staff and employees in general of state institutions is an instance at hand. A lengthy name composed largely of words of several syllables is sometimes considered to promote dignity and attract respect but the usual effect is just the opposite and rather than creating the desired results bulky names invite levity and ridicule. I doubt if there are any of my readers who will assimilate "The State Asylum for the Chronic Insane of Pennsylvania" without noting either a feeling of amusement or repulsion. Either reaction supports the point. If the name just given failed in any respect surely this which was found in the data for 1880 cannot: "Asylum for the Benefit of Persons Bereft of the Use of Their Reason."

To anticipate the results of a later section it may be said now that while a lengthy name may be demanded for scientific accuracy of description it is much out of place to go into such specific detail for the general populace. To utilize these exact descriptions defeats to a very considerable extent their purported aims. In general, the shorter a name the more favorable will be its reception.

III.

Connotations as a factor in public mental health was set forth in Section I. The next section dealt with the objective situation of institutional names during five periods. In this section a report

will be made of the methods and results of an empirical attempt to determine the subjective situation—that is, the relative connotative value of the various terms now in use or coming into use in this field.

By means of the data blank which is reproduced in Fig. 1, the connotative value of the following terms was probed:

Generic terms:

Asylum.
Colony.
Indefinite term.
Hospital.
Infirmary.
Sanitarium.

Specific terms:

Disease.
Insane.
Indefinite term.
Lunatic.
Mental.
Nervous.
Name of a town.
Psychiatric.
Psychopathic.

For the preparation of the data blanks the generic term hospital was used as the basic or key term because it was anticipated that the presence of that term repeatedly would not have the discomforting effect which the other generic terms might produce. Reference to the reproduction of the data blank in Fig. 1 will show that the term hospital appears in combination with each of the specific terms. To determine the comparative connotative value of disease, however, it is introduced in combination with the term mental with which hospital has already been seen. The generic terms, with the exception of the indefinite term Sunnyside, are presented in combination with terms with which hospital is already found.

From the arrangement of the references as given by our respondents the values of the different terms, from the point of view of connotations, can be determined. In the case of the specific terms it is their combinations with the term hospital

CHICAGO HOSPITAL
 STATE INFIRMARY
 RIVERVIEW HOSPITAL
 PSYCHOPATHIC HOSPITAL
 MENTAL CLINIC
 STATE HOSPITAL
 LUNATIC HOSPITAL
 PSYCHIATRIC COLONY
 MENTAL HOSPITAL
 NERVOUS HOSPITAL
 CHICAGO ASYLUM
 INSANE HOSPITAL
 RIVERVIEW SANITARIUM
 PSYCHIATRIC HOSPITAL
 SUNNYSIDE
 MENTAL DISEASE HOSPITAL

The two inside pages of this folder are vacant. On them write what it was about the different names that caused them to seem unpleasant or to be disliked. Write about as many of them as you can. Write as much about each one as you can. If there is not enough space inside to write all you want to use a separate sheet of paper and pin it to this.

INSTRUCTIONS:

Hospitals that treat mental diseases have many different names, although their aims and methods are practically the same. Some of these hospitals, however, have names which give an unfavorable impression. These names with unpleasant associations are very undesirable since it is an additional strain for one who is in danger of a mental breakdown to be sent for treatment to a place with a name that is disliked and perhaps repulsive.

It is the object of this folder to find out just what names cause the most aversion as well as those most liked.

Read over the list of names on the last page and in front of the name which *to you* seems to be *the least* unpleasant write the number 1. In other words, which one of the hospitals would you choose *on the basis of name alone* in case it was necessary for you or some friend or relative to receive such treatment and care? Then, after you have made your first choice, look over the remaining names and write a 2 in front of the name *next least objectionable* to you. Continue until you have them all numbered. *The name least objectionable will be numbered 1 and the name most objectionable numbered 16.*

Do not discuss this with anyone until after you have filled in all the pages.

How old are you?

Are you a man or a woman?

How far did you get in school

What do you work at?

In what state do you live?

FIG. 1.—Blank used for collecting the data. The two inside pages of the folder are blank. The page illustrated to the right is page 1; the page to the left is page 4.

which are crucial. To take an example, if we should find, by and large, that Riverview Hospital is preferred to Lunatic Hospital we should conclude that the connotative value of Riverview is better and more desirable from the approach of mental health than the connotations attached to lunatic.

With the generic terms it is the comparison of the preference ranks of the other generic terms which are combined with the same specific term which is crucial. For example, on the data blank the specific term Riverview is found in combination both with hospital and sanitarium. If, therefore, we find the average preference for Riverview Hospital to be three and the preference grade of Riverview Sanitarium to be 1 we would conclude that as a generic term sanitarium is to be desired over the term hospital, all other things being equal.

An objection, but by no means a fatal objection, to this method of evaluating the relative connotative values is that each generic term should be combined with all the specific terms. This is recognized as a theoretical consideration of some moment but I cannot see that it is of any great practical consequence. Admittedly it may be true that the general subjective effect produced by the specific term will vary slightly as the generic with which it is combined. The total situation connoted by Riverview Hospital may lend some enhancement to the specific term while the situation presented by Riverview Asylum subtracts some of the favorable associations from the same term. In general it is the absolute value which is not determined by this present procedure. The relative value, however, probably remains much the same within the specific series regardless of the generic partner so the pairs arranged in the data blank need not be increased several fold to pair all the generic and specific terms. A more serious defect which results from the presence of most of the generic terms only once is that they cannot be adequately compared with the basic term hospital. Practical necessity forces the present arrangement and to increase the number of entries on the data blank would obviously not only invalidate the results by setting a Herculean task for our respondents but also decrease the returns to a very low percentage.

A word of explanation concerning the motives which lead to the selection of the terms adopted with the neglect of others is

appropriated at this point before going further into the experimental technique. To take up the generic terms first we find from reference to Table I that in 1918 six generic terms were in use. These were: asylum, colony, hospital, infirmary, reformatory, and sanitarium. The term reformatory was not used in the collection of our data since the denotation of this word eliminated it from the institutional type under consideration. The indefinite term Sunnyside which could be used as a name for a country house, a farm, a summer resort, or a health sanitarium as well as a state institution for mental patients, was introduced as a constructive suggestion prompted by a psychological analysis of the factors entering into the connotative complex in situations of the sort under investigation. Clinic was also used because it is a term which is coming into rather general use in other phases of community mental health activities.

Of the 17 specific terms reported for 1918 only eight types were used in collecting our data. In general those appearing with the greatest frequency were selected although this criteria was not the sole basis for the choice. Some were omitted from our schedule because of denotative restrictions and other obvious inappropriateness. Such terms are chronic, criminal, dangerous, homeopathic, and Indian. Others of no great connotative significance such as the geographical location terms and numbers were left off the experimental list since the length needed to be restricted. The state name was not utilized on account of the introduction of extraneous associations. The term psychiatric while not in use by any state institution was introduced into the experiment because of the recognition which has been accorded to this term by several imposing public hospitals and clinics and the army and navy. When compared with psychopathic it will also give some insight into the relative merits of these oft debated terms.

Data was obtained from 422 respondents¹ but for convenience of treatment (as well as ease of calculation) the number has been reduced to 400. Eighteen incomplete returns were automatically eliminated and four others were discarded at random. The sex distribution of the respondents incorporated in this report is 231

¹ Especial acknowledgment should be made in this connection of the very valuable aid received from Professor Louvisa Wagoner of the University of Wyoming in securing a large part of this data.

women to 169 men. It is a selected group, being composed in the main of persons with a high school education. The range of ages is from 18 to 66 years with the mode in the third decade. Preliminary tables showing preference by age, sex, and education were prepared but no essential variations were evidenced from the group findings other than those consequent upon a smaller number of cases being used. Accordingly these preliminary tables are omitted from this report.

The preferences of the 400 are tabulated in percentages in Table IV. In this table the frequency of each preference rank given to a name is indicated in per cents in the horizontal line of figures to the right of any given name. For example, 12 per cent of the respondents indicated Chicago Hospital as their second choice, 13 per cent gave this same term as their third preference, and so on.

Two prominent characteristics of the data to be seen upon a superficial observation of the general contour of this table is the grouping of the preferences for some of the terms at one end of the scale of preferences or a general scattering on the part of others. Riverview Hospital is an example of the distribution of the preferences throughout a rather narrow range primarily at the upper end of the scale. Insane Hospital illustrates the rather concentrated grouping in the lower or undesirable end. Psychopathic Hospital is distributed throughout all the preferences. This lack of unanimity, so to speak, of opinion is of some little practical importance as will be indicated more fully later.

There are several methods of treating the data which will be followed that we may be certain of our findings from several angles.

The connotative preferences, as recorded in Table IV, of the three most significant generic terms are charted in Chart III. In this chart, as in the charts which follow, the vertical represents per cents on a scale of 0 to 100 and the horizontal the choices from first place to sixteenth. There can be no doubt as to the connotative merits of these three generic terms. The curve for asylum shows a lumping of choices toward the extreme lower end of the scale. Hospital occupies a somewhat similar position but at the upper or more desirable end of the scale of choices while the indefinite term Sunnyside is not only at the uppermost position but emphatically so. Both Asylum and Hospital show a scattering which is more marked in the case of the former. The indefinite

TABLE IV.
PREFERENCES FOR INSTITUTIONAL NAMES OF 400 RESPONDENTS.*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Chicago Hospital .....	..	12	13	34	17	7	8	6	1	..	1	..	1	..	..	1
State Infirmary .....	..	2	..	5	13	13	11	10	6	9	10	10	3	8	..	..
Riverview Hospital	12	28	38	8	5	6	1	1	1	..	..	..	..	..	..	..
Psychopathic Hospital	2	2	1	1	7	12	10	17	11	12	12	7	2	3	1	..
Mental Clinic	1	1	3	5	3	6	4	12	9	12	14	11	10	7	2	..
State Hospital .....	..	3	8	21	21	14	10	3	9	2	4	2	1	1	1	..
Lunatic Hospital .....	..	..	..	..	..	..	..	..	..	2	..	..	4	5	4	85
Psychiatric Colony .....	..	1	3	2	7	5	6	6	11	18	13	11	9	2	6	..
Mental Hospital .....	..	..	1	3	1	10	9	8	16	10	10	13	8	9	2	1
Nervous Hospital .....	..	2	2	3	6	13	13	11	5	12	9	12	7	4	1	..
Chicago Asylum .....	..	..	..	1	2	2	10	8	5	8	5	9	15	27	6	2
Insane Hospital .....	..	..	..	..	..	..	..	..	..	1	2	4	4	18	69	2
Riverview Sanitarium	6	38	22	12	11	1	3	3	2	1	1	..	..	..	..	..
Psychiatric Hospital	1	1	4	3	5	7	11	7	14	6	11	14	10	3	1	1
Sunnyside	78	10	5	2	1	1	..	..	..	1	..	..	..	..	1	1
Mental Disease Hospital .....	..	..	..	..	1	3	4	8	10	6	8	8	26	13	6	7

*Adjusted to even per cents.

term, however, has a closely grouped and narrow range of choices, indicating a more general agreement on the part of our respondents.

In Charts IV and V the preferences for the more important of the specific terms are illustrated pictorially. Very definite tendencies are seen in the case of the first and last choices of this group, especially in the case of the latter where there is an extreme peak in the curve. The first preference is undoubtedly the indefinite term followed by the name of a town and the term state. The least preferred specific term is lunatic which is hard pressed by insane for the last place. Disease is also a contender for the last honors.

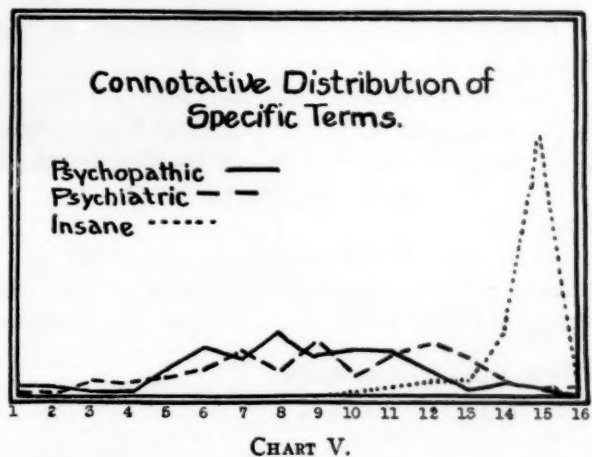
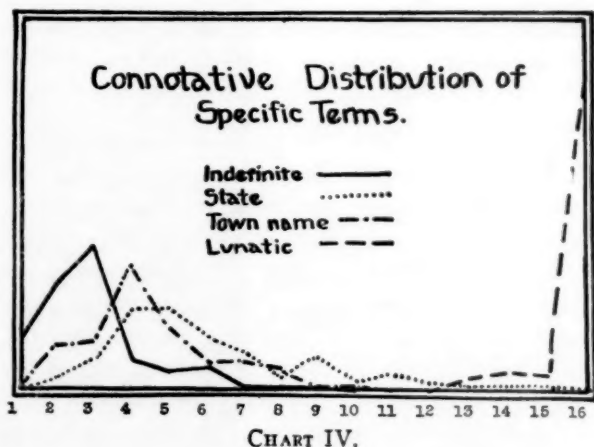
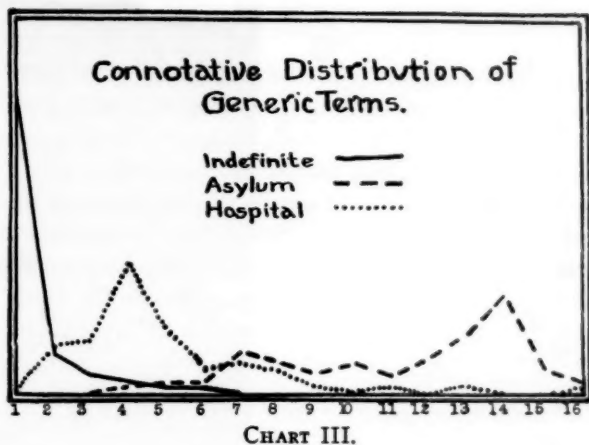
The fate of the remaining terms is not very evident from the graphs, in fact it will be noted that some of them are not recorded there. Accordingly a preference coefficient was developed to determine the position of terms such as psychiatric and psychopathic, nervous and mental which it is difficult to place on the charts. This coefficient penalizes each term one point for each per cent in each *progressive* displacement toward the lower end of the scale. The sum of these displacement-per cent products for each name, when divided by 100, the total per cent, will give the average placement of the name on the scale of choices. The formula for this in which n represents the number of cases in each point on the scale of preferences indicated by the arabic numerals 1, 2, 3, etc., up to 16 would be:

$$\frac{1n^1 + 2n^2 + 3n^3 + 4n^4 + \dots + 16n^{16}}{100} = \text{Preference coefficient.}$$

Applying this formula to the returns for each name we obtain the material for Table V.

TABLE V.
PREFERENCE COEFFICIENTS FOR THE NAMES.

Name.	Coef.	Name.	Coef.
Chicago Hospital.....	479	Mental Hospital	981
State Infirmary.....	849	Nervous Hospital.....	879
Riverview Hospital.....	299	Chicago Asylum	1,143
Psychopathic Hospital.....	844	Insane Hospital.....	1,451
Mental Clinic.....	952	Riverview Sanitarium.....	341
State Hospital.....	608	Psychiatric Hospital	905
Lunatic Hospital	1,562	Sunnyside	173
Psychiatric Colony	963	Mental Disease Hospital....	1,171



With the data reduced to coefficients as has now been done it will be possible to determine with some ease and reliability the relative connotative values of the terms, especially in the case of those terms from which there was a scattering of returns as psychopathic-psychiatric, where but little difference was apparent on the charts. Arranging the specific terms in the order of connotative merit as this coefficient permits we obtain the following series:

Euphonic*	299
Town Name	479
State	608
Psychopathic	844
Nervous	879
Psychiatric	905
Mental	981
Insane	1451
Lunatic	1562

This order is very definite and plain and should call for little comment. It is to be noted, however, that psychopathic is connotatively as well as denotatively preferable to psychiatric. It is perhaps more significant that nervous is preferable by slightly more than 100 coefficient points to mental. Our respondents would apparently rather bear the burden of organic (nervous) disease than a disturbance of some ethereal, over-plus affair (mental). This preference is reflected also in the very common use of the vague phrase "nervous breakdown" to convey the idea that one has experienced a maladjustment of behavior. I believe, too, that this is but another piece of evidence which indicates that the popular conception of "mind" is very similar to some antiquated theological conceptions of the same phenomena.

The conclusion to which we are forced by the data at hand regarding the specific terms is that, all other things being equal, from the approach of community mental health the most desirable terms are those *least specific* concerning the nature of the institution designated.

To arrive at the relative connotative value of the various generic terms it will be necessary, in addition to the charting of the most overt selections in Chart III, to compare the preference co-

* Riverview is the euphonic term used.

efficients of the crucial pairs. Doing this we find the following data:

Hospital, Riverview	299
Sanitarium, Riverview	341
Hospital, Psychiatric	905
Colony, Psychiatric	963
Hospital, Chicago	479
Asylum, Chicago	1143
Hospital, Mental	981
Clinic, Mental	952
Infirmory, State	849
Hospital, State	608
Sunnyside	173

The generic term hospital is thus seen to be preferred largely through its connotative value to colony, sanitarium, infirmory, and asylum in the order listed. The preference of hospital over colony and sanitarium is very small but in the case of infirmory and asylum, especially in the latter, it is large enough to be of considerable significance. Clinic was the only generic term preferred to hospital but in this case also the difference is less than one step on our scale of 1 to 16. There are connotative restrictions on the use of clinic, however, which would make it seem best policy to retain the term hospital rather than clinic.

The one term which was obviously and conclusively demonstrated to be richest in desirable connotations was the indefinite, euphonic term Sunnyside which has a coefficient of 173.

Apparently, in consideration of the above data, our conclusion regarding the use of the generic terms will simply be an echo of the findings regarding the specific terms. From the point of view of connotations the more indefinite a term the more desirable is its use.

Not only are the indefinite terms preferred in this connection but the thought of disease is better eliminated. Evidence of this is found in a comparison of the following preference coefficients:

Mental Hospital	981
Mental Disease Hospital	1171

The introduction of the overt thought of disease thus is seen to throw the connotative value of a name from tenth place on our

scale to twelfth place. A displacement of two steps toward the unpleasant and more undesirable end of the scale. With the exception of Sunnyside the disease aspect probably enters into the connotative complex of all the generic terms but in not so marked a manner as in this one instance.

One of the first observations made upon the data of Table IV was that some of the preferences spread out over practically all 16 points while in other cases the preferences were concentrated at one extreme of the other. The range of preferences thus furnishes the material for Table VI.

Only in one instance above do we find a scattering throughout the entire scale. This is in the case of the term psychiatric. Psy-

TABLE VI.
THE RANGE OF THE PREFERENCES.

Name.	Range.	Name.	Range.
Chicago Hospital.....	11	Mental Hospital	14
State Infirmary.....	12	Nervous Hospital.....	14
Riverview Hospital.....	9	Chicago Asylum	13
Psychopathic Hospital.....	15	Insane Hospital.....	7
Mental Clinic.....	15	Riverview Sanitarium.....	11
State Hospital.....	14	Psychiatric Hospital.....	16
Lunatic Hospital	5	Sunnyside	9
Psychiatric Colony	14	Mental Disease Hospital....	12

chopathic is found in all choices but one—the last. Nervous, mental, and state are distributed throughout 14 of the possible 16 places. Referring back to page 62 where the specific terms are found arranged in the order of connotative merit we note that the terms with the most scattering are those found between the extremes in the connotative order. Those which either head the list or are found at the bottom are the ones in which the range is smallest. Riverview, for example, has a range of nine and is found at the head of the connotative arrangement. At the other extreme of the scale is insane with a range of seven and lunatic with a range of five. The most decisive results of this study are apparently in a negative direction, least variation in connotative selection being manifest in the most undesirable terms.

It would of course be extravagant to think that the associations carried by any given term or phrase would be practically identical

for all people. There can be no doubt, however, that there are terms on which there is a general agreement. The data in the instance of lunatic seems to indicate this strongly. All other things being equal or even nearly equal the terms for which there seems to be most definiteness of connotative trends should be given preference over those with scattering associations. To carry this into action would be to avoid the institutional use of the terms for which the apperceptive mass, so to speak, is variable thus eliminating automatically those terms with a range of more, say, than nine.

The reasons given by our respondents for preferring certain terms over others confirms the frequently occurring observation that, regardless of whether man is a rational animal or not, most of man's profoundest and most certain convictions are not conceived by a logical inspection. A large number of those who contributed to the data which has been reported stated in unequivocal terms that there was a great significance attached to the various names on the data blank. While no one was able to state the reasons for this adequately they were nevertheless very positive in their preferences. The practical value of the findings is in no way lessened by the nebulous connotations which the respondents attempted, but failed, to identify.

In most instances "..... is better than" or "I do not like" were stated as the reasons for their preferences. The fundamental trends influencing and forming the connotations of these terms is apparently deep lying in the mental life and not on the surface ready for instant examination. This would lend support to the contention that the matter of the connotations of the institutional names is of no little significance in community mental health.

A statement which was written very frequently by the respondents was that they were led to select a given name as first choice because it did not in any way suggest the real nature of the institution. The present generation is very loath to admit the presence of that most estatic of human experiences—mental disease. Sunnyside was thus given first rank to a large extent on account of its indefiniteness and partly because of the pleasant imagery it brings to mind. This same term was also placed last in the range of preferences by some who objected because an institution of this kind, so they said, was really not nearly so pleasant as the

name would lead one to think and to use so agreeable a term was almost plain deceit. Not exactly deceit but perhaps camouflage and that of a very wholesome sort. Lunatic and insane brought to mind the very prevalent conception of despair, hopelessness, ravings, and all the conventional popular attributes of the *non mens compos*. State smacked of charity to numerous of the correspondents.

To a few people hospital was repulsive because of painful experiences but on the whole was accepted as standing for scientific efficiency. Clinic suggested a very thorough examination and adequate treatment at the hands of several experts, carrying the hospital concept perhaps more concentrated than does the term hospital. Infirmary was associated almost invariably with exhausted forces and debility as was colony which also savors of isolation and lepers. An air of distinction and luxury is carried by sanitarium but it is also clouded by charlatanism.

Psychopathic and psychiatric were elected primarily upon their capacity to be pronounced. To most of the communicants they were comparatively meaningless terms and neutral in their connotative effects otherwise than suggesting some medical diseases. Psychiatric was especially meaningless and pronounceless. I believe that on the whole the terms preceding psychopathic in the list of connotative merit as given on page 62 have desirable connotations, those following psychiatric undesirable connotations. The range between and including these terms is probably, by and large, relatively neutral.

IV.

In the two preceding sections we have studied the institutional nomenclature as it is and as it should be from the point of view of connotations. In the present section we will attempt the somewhat onerous and difficult task of superimposing the results of the two previous sections that we may in a way measure up and compare the ideal with the actual. It is sort of a connotative diagnosis which will be the aim of this section. To carry the medical analogy further, after having made the diagnosis some practical indications within the institution itself will be resolved.

We found that there has been a persistent decline in the use of the generic term asylum which is being replaced by the term hos-

pital recalling the relative connotative values of these two terms this may be described as a healthy tendency. Hospital also was found to dominate the field of terminology at the present day. This condition, also, is in itself in harmony with our connotative findings in general. Hospital does carry the disease aspect rather prominently, however, and was found connotatively to be inferior to a less definite and more euphonic term.

In the matter of specific terms we found in section two that the rather common tendency now is to use the term state as qualifying hospital. In our empirical findings, on the other hand, the term state is found third from the top (page 62). It is more desirable to use either a euphonic term or a town name rather than state. The difference in this case as was experimentally determined is about four steps on the preference scale used and is large enough to be significant. A gracious natural selection is at work eliminating the more rankly undesirable specific terms. What is needed now is a conscious selection in the adaptation of a terminology that will better serve the functions of these institutions.

In the light of our findings in section third, one might ask: Why have a specific term at all? And the question is very pertinent. We have found from our experimental material that indefiniteness is to be desired but before commending the application of this criterion in a wholesale manner to institutions for mental patients it may be well to anticipate involvements in respects other than connotative. The chief objection which may be raised against the adoption of a less definite, even generic, terminology is that the general public must be "educated up" until a more wholesome attitude toward mental ill-health is attained and to introduce terms that are not concrete and specific and are not a part of a technical vocabulary already existant will impede this progress considerably. It is entirely possible to cause such a change in attitude on the part of the great majority as Isben would say it. We see examples of such an accomplishment in the instance of large corporations which suffered a loss of public confidence upon exposure under the anti-trust laws. By extensive- and expensive-morale advertising it has been possible for them to win back the public confidence in due time.

As I see it there are two courses open with respect to this terminology as it is a factor in community mental health. The one

would be to start in with a clean slate by adopting terms more consistent with the interests of mental hygiene such as was determined in the section immediately preceding. The other course would be to win the public confidence to the terminology now in use.

Either course is practical. The first is perhaps the easiest of accomplishment. A great deal has already been done to approach the latter by the National Committee for Mental Hygiene but such progress is only in its infancy. It is entirely possible for the two courses to be interlocked to a certain extent thereby gaining the most from the start. It is one duty of the institutional executive as well as every isolated worker in this field to lend every effort to the upbuilding of a more rational terminology as well as gaining more of the public confidence and good will. The so-called mass mind is very plastic and fickle and in the hands of conscientious workers much can be accomplished in moulding it along any line desired. The influence of the state institution extends over a large radius and it is as much the function of these monuments to mental maladjustment to be a constructive force in the upbuilding of community mental health as in the rehabilitation of the patients in their care. So long as a part of the terminology fostered by these institutions is in itself destructive through its associations public policy will be loath to accept a healthy minded attitude toward the things of mental hygiene.

PSYCHOLOGICAL TRAITS OF THE SOUTHERN NEGRO
WITH OBSERVATIONS AS TO SOME
OF HIS PSYCHOSES.*

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The negro race evinces certain phylogenetic traits of character, habit, and behavior that seem sufficiently important to make the consideration of these peculiarities worth while; especially as these psychic characteristics have their effect upon and are reflected in the psychoses most frequently seen in the negro. Forming so large a part of the population and living as he does under conditions, climatic and otherwise, that are favorable and natural, the negro of the Southern states forms the basis of the observations and deductions of this brief article.

Less than three hundred years ago the alien ancestors of most of the families of this race were savages or cannibals in the jungles of Central Africa. From this very primitive level they were unwillingly brought to these shores and into an environment of higher civilization for which the biological development of the race had not made adequate preparation. In later years, citizenship with its novel privileges (possibly a greater transition than the first) was thrust upon the race finding it poorly prepared, intellectually, for adjustment to this new social order. Instinctively the negro turned to the ways of the white man, under whose tutelage he had been, and made an effort to compensate for psychic inferiority by imitating the superior race. Thus we see in this people a talent for mimicry that is remarkable. Efforts to imitate his white neighbors in speech, dress, and social customs are often overwrought and ludicrous, but sometimes sufficiently exact to delude the uninitiated into the belief that the mental level of the negro is only slightly inferior to that of the Caucasian.

The insidious addition of white blood to the negro race has produced significant effects upon the latter. This racial admixture

* Read before the Washington, D. C., Society for Nervous and Mental Diseases, March 17, 1921.

of blood has been between the negro female and the white male, with practically none between the negro male and the white female. But we cannot agree with Hoffman when he says that there is probably no true-blooded black man in the United States to-day. A limited observation and study of the negro families in the South will reveal the fact that there are still hundreds of the pure black African stock untouched by any possibility of miscegenation, though as the years go by they are passing. If the original white parent were always even an average representative of his race, mentally and morally, the hereditary effect upon the more or less mulatto offspring would naturally be that of improvement of the traits and mentality of the colored race, but unfortunately the white man by whom this fusion of blood starts is most often feeble-minded, criminal, or both. "This miscegenation appears to have effected the longevity of the race, and the changed social environment has brought about a moral and mental deterioration, together with a diminished power of vital resistance. Information has been brought out by some writers that the mulatto more nearly approaches the white in the contour and shape of the cranium; that the facial angle in the mulatto is larger than in the negro; that the cranial capacity has been increased, but that there has been no increase in the vital force; that the race may have gained in an intellectual way but not in a moral"—according to O'Malley.

Healthy negro children are bright, cunning, full of life and intelligent, but about puberty there begins a slowing up of mental development and a loss of interest in education as sexual matters and a "good time" begin to dominate the life and have the first place in the thoughts of the negro. From this period promiscuous sex relations, gambling, petty thievery, drinking, loafing and a care-free, prodigal life, full to the brim with excitement, interspersed with the smallest possible amount of work, consume his time. The female of the race begins promiscuous hetero-sexual relations, even with grown men, at a remarkable early age, resulting in illegitimacy and the spread of venereal diseases. Many mulattoes do not conceal their pride in being the paramour of a white man or becoming the mother of a quadroon. With their low moral level and as free agents, no wrong is felt in gratifying their natural instincts and appetites. The untoward effects of their excesses and vices are potent factors in the production of mental diseases.

Motion, music, and excitement, or a combination of these make up much of the life of colored people. Their natural musical ability of a peculiar type, and their sense of rhythm, are too well known to make comment necessary. Motion pictures especially delight but the modern dance has little or no charm for them. The "cake walk, shuffling, strutting, buck and wing," and such dances as give a wide range of motion of the arms, legs, and feet, suggestive of dances and orgies of the original African tribes, are executed in great style.

Naturally, the negro lacks initiative; takes no thought for the immediate future, living only in the present, without recalling with any degree of concern the experiences of the past and profiting by the same; does not worry poverty or failure; distrusts members of his own race, and shows little or no sympathy for each other when in trouble; is jolly, careless, and easily amused, but sadness and depression have little part in his psychic make-up.

All negroes have a fear of darkness and seldom venture out alone at night unless on mischief bent. Even when two or more are out together there is always fear and much caution. This noctiphobia is closely associated with the superstitions of the race, is akin to actual cowardice, so easily demonstrated, and emphasized by the constant reiteration of stories of the ante-bellum system of patrol of the plantations, of ghosts and the impressive nocturnal performances of the Ku-Klux-Klan.

It is the conscious or unconscious wish of every negro to be white. This is brought out in his dreams, the hope of being white and snowy being in the eternal life and in psychoses in which he *is* or *was* white.

Very dear to the heart of the whole race is the privilege of belonging to a secret order. The more lodges to which he belongs, the greater citizen he is considered. The secret work with its mysticism, ceremonies of initiation, parades and marches in highly colored uniforms and regalia on holidays or on funeral occasions greatly fascinate and attract both the men and women.

The religion of the race is unique in that it is not taken as seriously as is superstition. It is difficult to determine where one ends and the other begins. Original tribal worship, the queer racial awe of the mysterious, and association with the white race have affected their religion. Prior to emancipation, the slaves



attended the churches of the planters, occupying galleries especially prepared for them. Doctrines thus inculcated formed the background for their religious activities of later years. To these have been added such sounds, motions, and residual forms and ceremonies as have been left them by their African forefathers in efforts to appease the wrath and do honor to many deities. From time to time are added features that have proven successful in religious matters by their white friends. In their religious services, whether it be in singing, prayer, testimony, or sermon there is always a varying accompaniment ranging from an occasional grunt, groan, or exclamation to an almost continuous volley of all these, with continuous motion by the congregation, increasing in volume as the service progresses until a point is reached where their emotional fervor reaches its climax in wild disorder. During a single service a congregation of colored worshippers may work themselves into a hysterical state of emotional exaltation in which "the real world disappears from sight and the supernatural alone exists for them." Behavior at these times appears to be only a step from the manic phase of manic-depressive psychosis or a catatonic excitement. The service is never complete until a reaction from this state back to comparative quietude takes place. Meetings often last five or six hours and continue every night for several weeks. Sermons and exhortation delivered and received with such emotion and enthusiasm bear little or no fruit in their every-day life and conduct, affecting favorably the morals of very few.

Nothing in the life of the negro stands out more prominently than his superstition. It influences his thought and conduct more than anything else. In no other trait or peculiarity do we find more plainly the imprint of primitive African life and customs. A monograph might be written describing and tracing the origin of this psychic weakness of those of "ebony hue" but we mention only the most common and strongly believed superstitious ideas, born as they are of fear, credulity, intellectual poverty, and child-like imagination. Even the most talkative of the race are reticent and ashamed to talk about their superstitions, and make great effort to conceal all traces of it in ordinary conversation. It is best understood by hearing conversations between individuals of the race when they think it impossible to be heard by a white

person. Under these circumstances they discuss what they have heard and believe and match experiences freely with each other. Frequently this trait comes to the surface in delusions and obsessions but is even then disclosed with reserve.

Buried deep in the nature of this people is the belief that souls wander around not far from the interred body during twilight and at night as spirits, ghosts, or "hants," to trouble and disturb the peace of mind of those who have been unkind to the deceased when living. This belief and fear are sufficient to occasionally bring about optical illusions, especially if the moon is shining just a little, that are always without question taken as "hants." It is also believed that the left hind foot of a rabbit found in a "graveyard" is a charm or "fetich" that will make them successful at dice and in many ways ward off misfortune. Teeth of animals, snake rattles and skins are said to possess magic power of protection. Great faith is placed in witchcraft, palmistry, and divination. Persons who claim power to give information about the future, as in the fortune telling of these fakers, are considered great and all-wise representatives of the "Most High," especially if they present a weird appearance, use words that are difficult to pronounce and hard to understand, and do some sleight-of-hand tricks. The moon, particularly a new or waning moon, is ever to the colored man a sign of time and a reminder of death. This "time of the moon" is considered unfavorable for any doubtful or dangerous undertaking. It is also unlucky to start on an errand and turn back, but if such must be done, it is necessary to make a cross-mark on the ground and spit in one of the angles. Of interest to the psychiatrist is the belief in the ability of certain members of the race to "conjure" or place a "hoodoo," "voodoo," or "spell" upon another. The victim thinks that his enemy uses this power very secretly at will and for his own benefit. All sorts of bad luck, persecutions, disease, and mental conditions can be called down upon the person who is under the spell. This unfortunate condition can only be relieved by the intervention of some person having a greater power to "conjure" than the original enemy. Persons supposed to possess great power to break these spells and to ward off the evil operations or the power of the enemies are referred to as "Witch Doctors," or "Night Doctors," and are held in great reverence. Parents of a young patient having a

psychosis often contend that all that is wrong is that he or she is suffering from a "spell" placed on by a jealous or disappointed lover. The colored patients themselves often give being under a "spell" or "hoodoo" as explanation for their mental difficulties. They will often say, "He controls my mind." "Love Powders" to change one's luck in winning the affection of a person of the opposite sex or to break the power of a rival are much in demand, if guaranteed. With all the handicaps resulting from fears, low ideals, and primitive notions, it occasionally happens that the negro youth is fortunate in having the proper guidance and sufficient work to prevent him from making a complete wreck of his physical and mental life. Spurred on by a good example and a wholesome desire to be an exception and a leader who can help the race, many profit by the opportunities offered even in the South to secure a good education and develop into most excellent citizens.

In order to present late, reliable statistics of psychoses most often seen in the race, considerable information was obtained from state hospitals in the South treating a large number of patients, some of which receive only the colored. This information is given herewith in the form of a table, showing the number of admissions, the number and percentage of six of the most common psychoses of negroes admitted during 1920, as well as the number of suicides among such patients during the last five years. This statistical information is based upon a large number of admissions with diagnoses by capable psychiatrists.

It will be noted that alcoholism or alcoholic psychosis is the lowest in percentage of any of the group. This may indicate some of the "blessings of prohibition" but this psychosis, according to Kirby, is seen less often in this race than any other except the Hebrew.

Dementia præcox easily stands at the top in frequency, representing more than one-fourth of the psychoses of those admitted, a considerably higher percentage than among whites. This is not surprising when their racial character make-up and the atmosphere of superstition in which they move are considered. Much of their usual behavior seems only a step from the simpler types of this classification. The catatonic form predominates, occurring almost twice as often as among white patients.

STATISTICAL INFORMATION, COLORED PATIENTS IN SOUTHERN STATE HOSPITALS.

	Admissions, 1920.			Psychoses.																		Suicides, 1916 to 1920.														
				Alcoholic psychoses.						Cerebro-spinal syphilis.						Paresis.									Manic- depressive.						Senile.					
	Male.	Female.	Total.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.						
	169	172	341	0	0	0	0	20	11	31	9	4	48	55	103	30	20	15	35	10	52	41	93	27	0	0	0	0	0	0	0					
	260	226	486	2	3	5	1	9	1	10	2	2	61	91	152	31	26	36	62	13	48	55	103	21	1	0	1	0	1	0	1					
	99	65	164	2	1	3	1	2	2	4	2	13	3	16	10	5	3	8	5	38	33	71	43	0	0	0	0	0	0	0	0					
	183	187	370	0	0	0	0	1	0	1	1	13	2	15	4	24	19	43	12	64	113	177	48	0	0	0	0	0	0	0	0					
	228	188	416	1	0	1	1	20	12	32	8	19	4	23	6	31	53	84	21	22	16	38	9	51	35	86	21	1	0	1	0	1				
	204	234	438	2	1	3	1	2	6	8	2	31	10	41	10	46	69	115	26	5	24	29	61	37	50	87	20	1	1	2	1	2				
	129	158	287	0	0	0	0	21	12	33	11	11	5	16	6	28	64	92	32	21	7	28	10	23	20	43	15	0	1	1	1	1				
	133	97	230	0	0	0	0	27	12	39	12	8	2	10	4	22	19	41	17	19	6	25	11	14	23	37	16	0	0	0	0	0				
Totals.	1,405	1,327	2,732	7	5	12		102	56	158		113	31	144		267	379	646		141	126	267		327	470	697		3	2	5	2	5				
Per cent....											6				5				24				9						26							

Manic-depressive is the next highest. This percentage is higher than that of Green, who in 1916 gave valuable information and statistics as to this form of mental illness in the negro. His statement that the same was increasing is verified. In a people naturally care-free, fond of excitement and motion, it is expected that their mental unbalance would be colored by this mood swing and disposition and find expression in the manic type of the manic-depressive group. The very small number of suicides occurring among such a large number of insane colored patients is worthy of note and agrees with the statement of Babcock: "Two interesting phases of insanity in colored races are the comparative rarity of melancholia and the prevalence of mania which is 20 per cent more common than it is in whites. Consequently we should expect to find, and do find, almost an absence of suicidal tendencies among the colored insane."

The percentage of cases of the senile group does not materially differ from the ordinary proportion found in other races.

Comparison of this table with that of Kirby made from a study of psychoses of admissions to Manhattan State Hospital, by races, shows striking differences in the incidence of paresis and manic-depressive; the former being much lower and the latter much higher in our table. In considering such variance two facts must be given weight: (1) In New York hospitals there are normally received comparatively few colored patients, a different type, a higher type than usually admitted to the hospitals of the South Atlantic and Gulf states. (2) Twelve years ago there was no prohibition of alcoholic beverages in New York. According to Kraepelin, syphilitics using alcohol are more likely to develop paresis than those who do not.

With the great prevalence of syphilis among the negroes, it is significant that the number in this series developing cerebro-spinal syphilis and paresis is so low. Alcohol being less plentiful may be a factor, but it is evident that syphilis in the colored people of the Southern states does not strongly tend to develop into cerebral types, but may spend its fury upon other vital parts of the human body and express itself in the psychoses accompanying toxic conditions so often complicated by syphilis.

If we consider the psychoses of the negro from the mechanistic viewpoint, it will be found that practically all may be correctly

included in the following classes, named in the order most frequently observed: dissociation, compensatory and repression. Most of such psychoses are benign and acute but may become chronic if improvement does not relieve the situation in time to prevent it. The most common causative factors in the dissociation types are: "inability to prevent repressed disguised cravings from breaking through through the ego's resistance," as mentioned by Kempf; toxic elements, and real or imaginary domination by others. Conflicts or situations becoming almost unbearable, with no suitable means of sublimating or otherwise avoiding, make a psychosis of this character an easy avenue of escape from the field of reality. An example is the case of woman who was under the influence of a "spell" put upon her by another, committed a crime, asserting that it was not she that did it but that under this uncontrollable influence she became the helpless agent.

Fear is the all pervading cause in the compensatory type, "fear of fear, fear of sexual impotency and fear of loss of the love object" being the most noticeable elements. These manifest themselves in grandiose, unreasonable claims, persecutory ideas and pathological lying. An example is a case of a man, though black, said that he was the commissioned representative of God to protect white women and that he might be more effectual in his mission was made white and for all these reasons has been grossly mistreated by both white and black.

The repression type makes up the smallest part of the racial psychoses under consideration and is more of a compulsion neurosis than a psychosis. There are phobias and obsessions suggestive of psychasthenia. As so clearly expressed by White, "there seems to be an alternation between love and hate with no possibility of the formation of a working compromise." This type is more often seen in those who show an appreciable proportion of white ancestry.

In our observations the following points are evident:

- (1) The Southern negro has certain psychological traits that are reflected in his psychoses.
- (2) Motion, rhythm, music and excitement make up a large part of the life of the race.
- (3) Naturally, the most of the race are care-free, live in the "here and now" with a limited capacity to recall or profit by

experiences of the past. Sadness and depression have little part in his psychological make-up.

(4) Of all his peculiarities, fears and superstitious ideas stand out most prominently.

(5) The number of cases of alcoholic psychoses is surprisingly low.

(6) Suicide and suicidal tendencies are almost absent in colored patients, the ratio being about one to three thousand in state hospitals.

(7) The incidence of cerebro-spinal syphilis and paresis is relatively low in the Southern negro.

(8) Manic-depressive psychoses are observed to occur in higher percentage than that given by Green in 1916 (17 per cent). The manic phase is the one nearly always seen.

(9) Dementia præcox stands at the head of the list of the psychoses of the colored, catatonic form occurring about twice as often as in the white, and paranoid form coming next in importance.

(10) Mechanistic classification of the psychoses of this race show that nearly all are dissociation, compensatory or repression types.

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THE CONTROL OF COMMUNICABLE DISEASES IN PSYCHIATRIC HOSPITALS.*

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Although the practical control of communicable diseases in state hospitals may require certain modifications of methods employed elsewhere, the principles upon which all hygienic measures depend are universal.

I shall, therefore, present what seems to be a consensus of modern opinion regarding the essential epidemiological features of these diseases, and then attempt to show how these facts apply to conditions in hospitals for mental diseases.

Fifty years ago the germ theory of disease had not been accepted, and a belief in the doctrine of spontaneous generation still lingered in the minds of some medical men. The origin of communicable diseases was then ascribed to noxious emanations from the bodies of sick persons or to the pernicious influence of air charged with miasm.

To-day, however, we are convinced that all communicable diseases are directly attributable to animal or vegetable parasites; that these diseases spread only as their causal agents are transferred from the sick to the well; and that only by their secretions and excretions do infected individuals endanger others.

Under the term *communicable diseases* are included: all of the acute eruptive fevers, as smallpox, scarlet fever, and measles; the respiratory infections, for example, influenza and tuberculosis; such enteric affections as dysentery, typhoid, and uncinariasis; certain protozoan infections whose transmission depends upon the bite of an insect, for instance, malaria; a few diseases whose principal manifestation is a skin lesion, for example, favus and

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scabies; the venereal diseases; and, from the standpoint of the hygienist, those diseases also, the exact nature of whose communicability is not yet determined, but which are apparently infectious, notably encephalitis lethargica.

The agencies through which it is possible for communicable diseases to spread are: contact, animal or human carriers, water, and milk or other food.

It was formerly believed that most of the communicable diseases were air-borne. Merely entering a sick-room was then regarded as an instance of exposure by direct contact. We now know that air plays an exceedingly small part in the transmission of disease. Park¹ states that there are few authenticated instances of the aerial transmission of infection beyond a patient's room, and Marshall² says that, even in crowded rooms, the greater probability is that infection comes about through actual contact.

The term *direct contact* now refers to the immediate transfer of infectious material from one to another. The transfer of some of the respiratory infections may take place directly, as, for example, when a diphtheritic patient coughs into the face of an attendant. The venereal diseases are usually transmitted by absolute contact. In general, however, the transfer of infection is more indirect.

Fomites, once considered an important source of infection, are now disregarded in most diseases. The term *indirect contact* now refers almost entirely to the transfer of infection by objects freshly contaminated by infectious excretions. As Park³ puts it, "the probability of such transfer is directly proportionate to the time elapsing since contamination of the 'fomes.'"

The majority of infections are acquired either by inhalation or by ingestion. Moreover, infectious material is conveyed to the mouth or nose more frequently by the hand than in any other way. The hands of an attendant may become soiled by the discharges of a patient. His fingers then touch some object, as a fork or spoon, which goes to his own mouth or to the mouth of another. Such commonly-used objects as doorknobs, handkerchiefs, towels, and drinking cups may likewise facilitate the spread of infection. Undoubtedly, the most important factor in the distribution of communicable disease is the hand, and it has become increasingly apparent that the hand-to-mouth route of infection is the usual one.⁴

The contamination of milk and other food results almost entirely from infected hands, and is, therefore, but another instance of contact-infection; while a contaminated water supply simply represents on a large scale the transfer of human excreta to human mouths.

Besides the diseased individual, there is another important source of infection, namely, the carrier. By the term *carrier* is meant a person who, without symptoms of a communicable disease, harbors and disseminates the specific microorganisms.⁶ A carrier state may occur during convalescence, or it may continue following recovery from an infectious disease; or, following exposure to infection, a healthy person may become a carrier.

Some of the lower animals may also communicate disease to man, either mechanically or by serving as intermediate hosts for the causal agent. However, the most important distributor of human sickness is man himself.

In the foregoing discussion, we have dealt briefly with the ways in which communicable diseases spread. We shall now consider the methods of preventing the spread of these diseases. The means of control are: recognition, isolation, disinfection, and immunization.

I cannot emphasize too strongly the importance of early diagnosis in the prevention of infectious diseases. Measles, for instance, is highly communicable during the pre-eruptive stage.

The case with mild symptoms also deserves serious consideration. A number of serious respiratory affections, for instance, begin with symptoms resembling those of an ordinary cold. So eminent an authority as Park⁷ says that there is no laboratory method of differentiating between a cold and influenza. And Foster⁸ has recently shown that bronchopneumonia frequently passes under a diagnosis of bronchitis. Furthermore, serious secondary infections are readily implanted upon tissues rendered vulnerable by slight inflammations. Again, mild cases of diarrhea may be due to typhoid or dysentery bacilli. Bates,⁹ of the Panama Canal Zone Health Department, reported a bacteriologically-controlled series of mild, atypical typhoid cases, and remarked their importance as sources of endemic infection.

Not only must we recognize the early case and the case with mild or atypical symptoms, but we must also have in mind the carrier.

The appearance on our wards of such diseases as typhoid, diphtheria, or meningitis, suggests a carrier, and indicates a bacteriologic search for such person among the patient's associates.

If we would prevent epidemics, we must isolate every case of communicable disease during the period of infectivity. The period of communicability continues as long as definite lesions persist, and until microorganisms, known to have a definite etiologic relation to the disease concerned, disappear from the excretions. Some diseases are quite infectious during the prodromal period. Hence, during an epidemic, we must isolate not only the actual cases, but also all contacts who show an elevation of temperature.

There are two systems of disinfection: concurrent and terminal. The term *concurrent* applies to the disinfection, while the disease is in progress, of all discharges and of all articles which come in contact with the patient; *terminal* refers to the disinfection of the premises when the patient has vacated them.

Terminal disinfection has practically been abandoned. Fumigation methods, as ordinarily carried out, are notoriously uncertain in action. Furthermore, they are entirely unnecessary if concurrent disinfection has been faithfully employed. The most satisfactory method of terminal disinfection is to sun and air the sick-room thoroughly, after carefully scrubbing its floors and walls.

At the Ellis Island Hospital,⁹ contagious cases constitute seventy per cent of the admissions. The patients are all served by the same laundry and kitchen, and all handled by the same personnel. They have discontinued terminal disinfection in this institution, and rely entirely on concurrent disinfection and simply scrubbing and airing the vacated rooms. Yet only two per cent of their patients develop cross-infections.

Regarding the use of vaccines and anti-serums for immunizing purposes, there are very few diseases, indeed, in which these agents are of proved value. Smallpox, rabies, tetanus, typhoid and paratyphoid, and to a lesser extent, diphtheria, cholera, and bacillary dysentery are probably the only ones.

We have now considered the principles underlying the spread and control of communicable diseases. We have seen that the patient's discharges contain the source of danger; that human contact is the most important factor in spreading infection; and

that the route of conveyance is most frequently from hand to mouth. We have noted also the great importance of the early case, the mild case, the unrecognized case, and the carrier, in the spread of infection. Likewise we have noted the necessity for isolation and concurrent disinfection. With these fundamental facts in mind, let us consider their specific relation to the problems of the state hospital.

Although a few suggestions will be made regarding the construction of contagious hospitals, the technic of medical asepsis, the use of disinfectants, and personal hygiene, it is not my intention to treat these subjects comprehensively.¹⁰ Nor are the methods, outlined for the control of communicable diseases in general, sufficient for the management of every communicable malady. Malaria, for instance, is not affected by measures designed to prevent bacterial diseases.

In psychiatric hospitals, communicable diseases are transmitted almost entirely by contact-infection. Food, water, and carriers are relatively less active sources of infection.

Every hospital should secure as pure a water supply as it is possible to obtain. However, water is not a frequent source of disease in institutions. Typhoid is the principal disease transmitted by water. Water-borne epidemics do occur, and, when they arise, affect almost simultaneously a large number of persons. Yet there is no doubt that, in the past, many typhoid epidemics have been erroneously imputed to bad water, whereas more immediate sources of infection, such as contact, carriers, or mild cases, were not carefully excluded.

Milk, too, is a minor factor in the spread of disease in institutions. With the rare exception of bovine tuberculosis, the diseases transmitted by milk are all due to the insanitary handling of the milk. I would counsel vigilance in the supervision of all food-handlers. Every infected person, carrier, or convalescent should be carefully excluded from such duty.

The human carrier is undoubtedly responsible for some epidemic disease in state hospitals. However, the carrier distributes disease in the same way as does the sick person; it is only by contact with the infectious discharges of the carrier that we are endangered.

The conditions in all psychiatric hospitals are such as to favor the dissemination of diseases that may be spread by contact-

infection. The patients spend the greater part of their time, closely associated with other patients, on a ward. Nor is the ward itself an isolated unit. In the kitchen, dining-room, amusement hall, sewing room, and elsewhere, the patients mingle with those from other wards. Moreover, visitors and attendants introduce into the wards infections which they have acquired outside the hospital. Again, it is necessary to utilize the help of patients in the ward work. Frequently, the same patient will, at one time, assist in performing toilet service for some unclean patient, and, at another time, help serve meals. Add to the foregoing statements the fact that we cannot improve the insanitary personal habits of some of our patients, and you have a fair account of the possibilities of contact-infection in hospitals for mental cases.

To prevent communicable diseases, it is not necessary to restrict the mingling of our patients nor to modify materially the normal routine of hospital life. It *is* necessary to detect and isolate promptly all infectious cases occurring on our wards.

Every state hospital should have special wards for contagious cases. The experience of the Ellis Island Hospital,⁹ and that of Richardson¹⁰ at the Providence, R. I., City Hospital have demonstrated the possibility of handling contagious diseases successfully even on the wards of a general hospital. However, it is certainly unwise to keep infectious cases on the general wards of a psychiatric hospital.

The contagious wards may safely be situated near the other hospital buildings. The construction of the wards may be similar to that of the general wards, the single rooms being used for individual contagious cases, and the day rooms for convalescents, or, perhaps, for suspicious contacts. Stokes,¹¹ of the Dermatologic Department of the Mayo Clinic, who has studied exhaustively the question of contagious hospital construction, advocates the single-room type of building. Ample facilities for sterilization should be provided.

A more important matter than the architecture of the contagious wards, is the rigid observance of a technic adequate to prevent cross-infections within the hospital. Every object removed from a sickroom must be regarded as infected until sterilized. No unsterile article may be taken from the room of one patient, or class of patients, to that of another. A separate gown, placed

near the entrance to each room, is put on when entering and removed upon leaving. The hands must invariably be disinfected upon leaving a room.

A two per cent emulsion of creolin can be recommended as an efficient, practical disinfectant for the hands.⁹ This emulsion is also useful for such purposes as cleaning bedsteads or washing out bathtubs. Allowed to act for one hour, it may be used to disinfect clothing, utensils taken from isolation rooms, and discharges. For the latter purpose, thorough incorporation of the excreta with the disinfectant is important. The disinfection of most of the articles used on contagious wards may also be accomplished by boiling, which is a much more certain method. Gowns and other linen may be sterilized by steam under pressure.

The attendants on the general wards are incompetent to nurse contagious cases. They lack training. Indeed, many of them do not expect to continue in hospital work, and, therefore do not care to learn how to nurse the sick. For the personnel of our contagious wards we must select a few reliable attendants, and teach them the principles of infection and of medical asepsis.

If we isolate, as we should, every infectious case, our contagious ward will seldom be empty. And, to be effective, isolation must be thorough. Neglect to isolate an occasional infectious case may mean the failure of our whole system of prophylaxis.

More urgent, perhaps, than the need for a contagious hospital, is that of providing pavilions for the tuberculous patients. The experience of the Georgia State Sanitarium¹⁰ sufficiently emphasizes the value of such pavilions, not only as a means of segregating the tuberculous patients, but as an efficient therapeutic measure as well. Following the construction of pavilions at the Georgia institution, the mortality rate for tuberculosis fell, within three years, from 28 to 7½ per cent.

Since the prevention of communicable disease is so largely a personal matter, a few elementary hygienic facts ought to be universally known. As physicians, we should, whenever and wherever possible, aid in the diffusion of this knowledge. We should impress upon all of our attendants, and upon docile patients, such facts as the importance of keeping the fingers away from the mouth and nose, and of washing the hands before eating.

Reviewing, then, the question of a communicable disease control in psychiatric hospitals, it is obvious that a clear conception of

the epidemiology of these diseases is essential. In addition to this, the early and thorough isolation of infected patients, a properly trained personnel to nurse the infectious cases, and the encouragement of better personal hygiene, are the considerations which seem to be of most importance.

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RECREATION FOR MENTAL CASES *

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The original idea in the preparation of this paper was to arouse more general interest in the recreation provided for patients in hospitals for mental cases, but so close is the relation between recreation and occupation and so important is the latter, that it was found impossible to refrain from devoting considerable space to it.

No one who has had much experience in the treatment of mental cases will deny the beneficial effect of diversion of any sort. There may be some difference of opinion as to the most useful forms for different conditions, and also as to how extensively we shall put our beliefs into practice, but we all recognize the value.

It has been appreciated by some for many years. Dr. Mary Lawson Neff,¹ who long directed the occupations and amusements in the institutions in Massachusetts, is authority for the statement that, in describing a visit to York Retreat in 1798, Dr. Delarive, of Geneva, said: "As soon as the patients are well enough to be employed, they endeavor to make them work." He made special mention of basketry as among the occupations engaged in. Dr. Wyman² was the first superintendent of McLean Hospital (1818-50). He paid great attention to recreation. The following is a quotation from him: "In mental diseases, where there are no symptoms of organic disease, a judicious moral management is most successful. It should engage the mind and exercise the body, as in riding, walking, sewing, embroidery, bowling, gardening and the mechanical arts, to which may be added reading, writing, conversation, etc." Dr. Amariah Brigham, while at Hartford Retreat, and later as superintendent of the State Hospital at Utica, N. Y., went much further and recommended many

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¹ Medical Record, Dec. 3, 1910.

² Institutional Care of the Insane in the United States and Canada.

industries, as well as museums and schools, where, in addition to simpler branches, history, philosophy and the natural sciences could be studied.

These views were in advance of the times, and we have not yet caught up to some of them. Schools seem to have been quite common at one time, but the writer has been unable to learn of any in existence at the present time, except in hospitals for feeble-minded. A few years ago one was started at Massillon, Ohio, but it was later discontinued.

I think that we may say, with truth, that almost any form of occupation may rightly be considered recreation for men and women who would otherwise have nothing to do, or who would have no inclination to do what lies at their hand; but this paper will consider mainly those occupations which are undertaken for the express purpose of furnishing diversion or recreation for minds that need it.

It is, I think, the consensus of opinion that the object of all forms of recreation should not be, primarily, to enable the patient to pass the time more pleasantly, though that is very desirable, for the play instinct has been neglected in so many lives, with more or less injurious effect. But the main object of recreation is to divert the mind of the patient from any morbid thoughts or feelings into more healthful channels, so that his life, as a whole, may be influenced beneficially; and he may be rendered a better patient in every way, to the end that he may be restored to his former place in life, a self-respecting, self-supporting citizen.

I have mentioned thoughts and feelings. It might be well, at this point, to include habits and ideals; habits of thought and feeling, and not only habits but ideals of cleanliness, industry and efficiency. It has been stated that the degeneration of patients into the filthy, destructive stage is due entirely to habit deterioration, and Dr. W. A. Bryan,² of Danvers, states that, if this be true, the correct principles of treatment are obvious: first, by means of training, to prevent the formation of vicious habits before they become fixed, and secondly, to form new and better habits in those who have already sunk to this low mental level. I think that most of us will agree that habits have a strong influence upon mental

² American Journal of Insanity, July, 1920. p. 999.

health, and that our main aim in treatment is to influence the habits of the individual.

As Dr. Bryan has so well brought out, there are in each individual, more or less developed, certain instincts, which act as motives and forces impelling to thought and action. If we are able to discover in a patient the instincts which are most active, and are able to encourage the good ones and to discourage the undesirable ones, we shall get good results. Dr. Bryan mentions the instincts of play, imitation, acquisitiveness and constructiveness, affection, sympathy, self-assertion, curiosity, rivalry, pugnacity in certain cases, and occasionally the sex instincts as expressed in modesty and vanity. Pride may also be useful in connection with competition and rivalry, and fear—the fear of social disapproval. These instincts exist, as we all know, and we can depend upon them, as we endeavor to influence the habits and ideals of our patients, whether in actual practice we think much about them or not.

The forms of recreation may be said to fall roughly into two classes, those in which there is a necessity for some effort on the part of the patient, some degree of initiative, some attempt to control and to fix the attention, and to persevere in the thing undertaken, whether it be in playing a simple game or in making a broom; and those in which none of these efforts are required, such as in watching a base-ball game or a minstrel show or in listening to a victrola.

The first of these classes, those requiring effort, are undoubtedly of much greater value than the latter, because they do require effort and so have a greater influence in arousing and stimulating the mental faculties of the patient. They may be again divided into those activities in which there is no end-product from a utilitarian standpoint, except physical health, such as in all games and exercises, and those in which something definite has been accomplished, something of value, which tends to increase the patient's self-respect, by making him feel that he is of some use in the world.

All forms of entertainment, though requiring no effort, have their place and are also of value. For one reason, because they may be made to reach, in one form or another, practically all the patients in the hospital, and with the least expenditure of effort on our part. They brighten the outlook of all patients. But the

faithful workers, who do so much of the necessary work about a hospital, call for all the brightness that we can bring to them. Some of them will remain in hospitals all their lives, many performing more or less monotonous work, and they all deserve that much thought shall be given to relieving the monotony of their work and to making their lives as enjoyable as possible.

Practically all hospitals show moving pictures regularly, and they are generally helpful, provided the right sort of pictures are exhibited, and not those showing murders, marital infidelity and other objectionable features. Probably the comic pictures are most generally helpful, for they certainly tend to dispel gloomy thoughts, and to replace them with others of a character tending to arouse interest and to provoke mirth. The artistic and educational pictures are also helpful.

The next most generally adopted forms of recreation are the baseball game in summer and the dance in winter, and they are both helpful; the baseball game, because so many can be led to take an interest in it, even many who know little about the game, and the dance, because it tends to overcome the lack of initiative and the anti-social tendency.

Many who cannot or will not attend a dance, movie or other entertainment, may be reached on the wards by victrolas or music in other forms.

The usual games are helpful, such as cards, checkers, pool, billiards and croquet, but they so often reach only a comparative few.

Reading is also helpful, but it needs to be under some supervision, for some patients are disturbed by certain classes of books, and much encouragement is necessary to induce many patients to read books at all. An intelligent librarian may do much to develop a taste for a better class of literature than would be selected if the unguided choice of the patient was alone consulted. Dr. Dunton, of The Sheppard and Enoch Pratt Hospital, places the establishment of a library under a competent librarian as the first step in arranging for any system of occupational therapy.

I have spoken, so far, only of the things which are more or less usual in hospitals for mental cases, things which call for little effort on our part and entail only moderate expense, but on the other hand they fail to effect, to any great extent, a large part of our population. We have not yet provided for the idle class, the

unsociable, the dirty and destructive, the demented and those who are becoming so. If the theory of habit deterioration is correct, and experience seems to support that view, we will do well to work along that line, and this is being done in many places.

Two distinct lines are being followed, that of physical exercises and games under a physical director or physical therapist, and of occupation under an occupational or vocational teacher. Each line of endeavor has its advantage.

In hospitals which have physical directors, patients are given calisthenic drills or simple exercises, are taught folk dances and play games. In this way patients may be reached in large numbers, and not only their health be improved, but their mental faculties may be aroused and many may be induced to engage in some occupation, who might not otherwise have done so.

As Dr. Russell⁴ of Bloomingdale has put it: "Calisthenics and games furnish exercises in attention and in precise, purposeful action. They divert the mind from unwholesome, solitary pre-occupation, break-down inhibitory influences and aid in establishing capacity for social adjustments. Frequently in the treatment of a patient, they serve as an approach and a preliminary training to more productive occupation."

It is considered that the instinct of play is the most useful of all instincts in reaching patients, because of the sensation of pleasure which accompanies all games, and because of the stimulating effect and the instinct of rivalry which is called upon. Outdoor games are especially helpful, because of the benefit and enjoyment to be derived from the fresh air and sunshine.

At the Chicago State Hospital, two years ago, an average of four hundred and fifty patients attended calisthenic classes daily and Dr. Read reported that 54 male patients from a ward of idlers were so improved, after a month of this work, as to warrant their being placed upon detail work about the grounds.

In some hospitals games and music are used to break the monotony of occupation and to avoid tiring the patients.

As far as the writer has been able to learn, calisthenics and games have not yet been much developed as therapeutic agents in Pennsylvania, but some hospitals are taking them up. Judging

⁴ Society of the New York Hospital, General Bulletin, Dec. 24, 1915.

from the testimony of many who have employed them, they are worthy of careful thought.

What is probably the most useful therapeutic measure, that we have, has purposely been left until last—that of the industries and the arts and crafts. Patients of all classes may be cheered and benefited by entertainments of all sorts and by games. Many may be helped by calisthenics and directed games, but we have not yet accomplished the greatest good, until we have our patients at some occupation more or less useful. It is generally conceded that much benefit is derived, much comfort of mind secured from the knowledge that one has performed a useful piece of work or has made something useful or beautiful. Workrooms are therefore most necessary in which as great a variety of occupations as possible may be engaged in; not only to suit the different capacities of the patients, but to insure that something may be found to interest each patient, and that no one may be compelled to work too long on one thing and so lose interest in it. Occupation rooms such as these can only be managed efficiently by trained teachers and only by those trained teachers who have an aptitude for the work. A few years ago, a six weeks course was considered a fairly good preparation for such work. Now some of the courses have been lengthened to a year, and in one hospital the teacher is paid more than the physician. That shows the growing appreciation for this work.

Some patients do not need this sort of employment at all, but might be decidedly injured by being asked to take up many of the arts and crafts, being depressed by the thought that they were considered only fit for such simple work. They are much more benefited by being placed at once at fairly strenuous work.

Others require much individual attention and often much experimentation to discover the occupation which will interest them. Much habit training is also often necessary before they are fitted to do the regular work of the hospital.

Almost all classes of patients can be helped. Some will do nothing at all at first, but are allowed to sit and watch the others work, when after a time, due to the instinct of imitation, they gradually get into the work. Some may be induced to do only the simplest things, such as sorting colors, working with burlap, preparing carpet rags, winding reed in preparation for making

baskets or sand-papering the parts for wooden toys. Bright pieces of silks and wools, the brighter the better, may be obtained from mills at little expense, and one can easily see that some patients, who might not be induced to do other things, would be interested in sorting the bright colors. One patient at Chicago was quite unresponsive, and sat for days before the goods to be sorted but would do nothing, though urged to do so each day. Finally it was noticed that, when the instructor was not around, she began to work with the colors, and she developed into an expert and willing sorter. These goods, when sorted, are used by other patients in weaving and for other work. Burlap may be obtained from the store-room of any hospital, coming as it does about many of the stores. It is sent to the laundry and washed and is then given to the patients to unravel. The destructive tendencies of some patients may thus be diverted into useful channels. Many of them are constantly unraveling socks and towels and anything that they can get hold of, and may be put to unraveling burlap. Other patients may be induced to tie the pieces together and to wind them into skeins, which are then dyed and then wound into balls for weaving. Miss Emily Haines, Supervisor of Industries of the State Board of Insanity of Massachusetts, cites the case of a woman who had sat for 20 years with her hands to her head and who would do nothing. She was induced to unravel burlap and to knot and wind it. Now she is not satisfied until each morning the nurse has given her her work and she sits, a picture of contentment, with a chair in front of her, upon which she winds her skein.

One of the simplest occupations is the tearing of rags for carpets, sewing them and rolling them into balls. This, too, is useful for the destructive patient. The sorting and stringing of colored beads appeals to some, and to others the outlining in colors of simple patterns on muslin or linen blocks for quilts. As the patient becomes more proficient, more complicated designs are given.

More advanced cases, those sometimes spoken of as Class B, may be interested in raffia and reed baskets, in the simple forms of weaving, in wood-work and in crocheting and knitting. Men are taught to do what is called "rake knitting," which, though a mechanical process, enables them to make beautiful scarfs.

For the wood-work, the store-room is again called on for all the cast-off boxes, and it is surprising what can be made from such

material. Much ingenuity is called for on the part of the teacher to keep designing new novelties and toys and so keep up the interest. In this work some can saw and some can paint, but even the most demented can sand-paper and so feel that they are having a part in the work, and quite attractive toys are produced even by this class of patients.

By the more advanced patients, those sometimes called Class A, beautiful work is done. Weaving of the finer and more complicated type produces curtains, toweling, scarfs and hand-bags. Rag rugs are made with patterns and color schemes. The blocks, previously mentioned, are made into quilts. More complicated knitting is done, such as sweaters. At Allentown beautiful lampshades are designed out of wood. In many hospitals furniture is repaired, and in some places furniture is made.

At the Sheppard and Enoch Pratt Hospital the women are taught to do simple repairing to furniture, with the idea of inculcating in them the desire to keep the furniture in their homes in good condition.

There are many other occupations which may be added, as the work advances, such as work in cement, leather and metal, and in printing, book-binding, decorative painting, etc. It is quite doubtful, however, whether much will be gained in most state hospitals by starting some of these occupations, because of the very few who would be interested in them, and because of the manifest uselessness, in a very great majority of cases, of the knowledge and skill gained, to the individual in his or her after life, provided, as we hope, they are returned home. Undoubtedly our first aim is to restore our patient to mental health, so that we are in search, at first, of any occupation which will be taken up with interest, but we are certainly interested in preparing our patient, as much as possible, for life at home. Will we not do well, then, in outlining our courses in occupation, and in advancing each individual patient, to give much thought to securing for each one, sooner or later, knowledge and skill in some occupation which will render the individual's life more efficient at home or, as is often just as important, will furnish a much needed diversion through life.

While the object of occupation, as has been said, is not primarily the production of objects of value, but to discover something which will interest and occupy the mind of the patient, with a view

to helping him mentally and physically; and while great care should be exercised not to discourage anyone from working because the object made is crude and of no value, yet it is interesting to see how their ideals of efficiency and perfection develop under careful training, and the excellent work many of them do. It is also interesting to know that it is the experience of those who have occupation rooms well developed that practically all the products of such rooms, some of them quite crude, may be sold, and that the income provides for all materials used.

I have endeavored throughout this paper to emphasize the benefit to the patient, but I am afraid that it has been done very imperfectly. It is difficult in such matters to speak at all definitely as to results. All appreciate the beneficial effects, but few venture to give any statistics. It is generally conceded, however, that patients are more contented when occupied. They are less destructive. They deteriorate less rapidly, and, in the so-called "curable" cases convalescence is hastened.

The general effect of any study of this subject is to impress upon the mind more clearly than ever the fact that if we wish to do our duty by our patients, it is just as necessary that we shall provide recreation for them, as that we shall provide food and clothing; and the time is coming, if it is not already here, when any hospital that does not provide for games, and for a fairly systematic, progressive, course of instruction in occupation, under trained teachers, will be considered derelict in its duty.

Notes and Comment.

THE SEVENTY-SEVENTH ANNUAL MEETING.—The meeting in Boston on the last day of May and the 1st, 2d and 3d of June was one of the best attended, with the most sustained interest which the Association has held.

The Committee of Arrangements provided for the comfort and entertainment of the members of the Association and its guests in a manner which deserves much commendation. Its members were most assiduous in seeing that the time was spent to the best advantage by everyone who chose to follow out the program. The hall provided for the meeting place left little to be desired, there were few distractions from outside noises, the ventilation was good and the acoustics were as perfect as could be expected.

The program committee furnished a most excellent selection of addresses and papers and these were so well grouped that the discussions and general interests were well sustained throughout.

The presence of representatives from our fellow associations of Great Britain and France, in the persons of Dr. Rows and Professor Janet, each of whom read papers, added very much to the interest of the occasion and suggested the possibility of future conjoint meetings of the psychiatrists of this country and those so well represented by our visitors.

The address of the retiring President, Dr. Copp, as would be expected, struck a keynote. He outlined a program for future progress in psychiatry which if put into practical application, will be of immeasurable value to the world. The address which appears in this issue of the JOURNAL deserves careful reading and will well repay serious study.

The adoption, unanimously, on the second day of the session of the amendments to the Constitution and By-Laws presented last year was an epoch marking event in the history of the Association.

The chief change in the Constitution was that involving a change of name. The Association is no longer to be known as The American Medico-Psychological Association, but becomes The American Psychiatric Association and enters upon the first year of existence under its new title with over 1000 members.

Organized in 1844, with thirteen members, as the Association of Medical Superintendents of American Institutions for the Insane; it had an active and most useful career until 1892 when a new Constitution was adopted and the name changed to The American Medico-Psychological Association. At the same time it became less exclusive as to its membership, and assistant physicians of institutions for mental cases were received as associate members. Physicians of known reputation, engaged in psychiatric practice outside of institutions were also made eligible for membership.

With these changes the Association took on renewed and increased activity.

For a long time, prior to the change, its meetings had ceased to be conferences for exchange of views on hospital management and construction or upon matters relating to the public care of the insane. Papers of real scientific value had appeared in increasing numbers in its proceedings, but it was looked upon by many as a close corporation with limited influence or value.

Its history, however, is one of which one may be proud. It did more than any other force to arouse public interest and instruct the public through legislatures and other organized bodies in the needs of the insane in the community and to provide suitable care for these, when such care was, above all other things of paramount importance.

There were a few whose captious criticism, uninformed by any real attempt to grasp the problems which confronted the members of the Association and unenlightened by any vision of their work or of the obstacles which they had to overcome, for a time caught professional and public attention, but had little or no effect upon the minds of those who had studied the situation.

The period covered by the first forty years of the Association's history has been called that of "humanitarianism and empirical treatment."

Surely the first word bears with it no condemnation—and as to the second—the teachings of even our best medical schools and the work of general hospitals had scarcely emerged from empiricism when, in 1892, the Association took on new life and activity, under a new name.

And now after more than a quarter of a century another name has been adopted "The American Psychiatric Association." The history of the Association since 1844, the character of its work, the men who have been attracted to its ranks, the respectful attention given its promulgations, all argue well for the still further glory which awaits it under the new order and the new name. The meeting in Boston combined in one occasion the closing days under the old name and the opening of the new era under the new one; and the character of that meeting also promises well for the future.

THE AMERICAN JOURNAL OF PSYCHIATRY.—Under this title will henceforth appear the quarterly journal known since 1844 as THE AMERICAN JOURNAL OF INSANITY.

From July 1844 until 1894 the JOURNAL was published and edited at the State Hospital at Utica, N. Y. The editorial work was done by the medical staff of the hospital, and the JOURNAL soon took a place among the recognized publications devoted to mental disorders in the world. There are to-day in the field of psychiatry but two periodicals which antedate it and they, by but a few months.

In 1894 the American Medico-Psychological Association purchased the JOURNAL from the managers of the State Hospital at Utica and it has since been published under the auspices of the Association and has been its official organ, conducted by an editorial board, appointed by the council.

The proceedings of the annual sessions of the Association have regularly appeared in its pages and the majority of the papers presented at these sessions.

Under the management of the Association and of the Johns Hopkins Press which has been the publishers for several years the circulation and influence of the JOURNAL have increased, and from being a liability on the books of the Association in 1894, it has become in 1921 a valuable asset. In addition to the papers read at the annual meetings there has always been an ample supply of other material offered the editors for publication.

With the change in the name of the Association it was deemed best to make a similar one in the name of its official organ.



This change of name does not imply any change in the character of the publication except in so far as its editorial board may be able to continue the progress which has characterized the JOURNAL in the past.

To that end its members promise their best, and to that end they appeal for the support and cooperation not only of every member of The American Psychiatric Association, but of every one interested in the advance of psychiatric medicine in America.

FRENCH LEAGUE OF MENTAL HYGIENE AND PROPHYLAXIS.—We have received from Dr. Antheaume, editor of *L'Encéphale* and *L'Informateur des Aliénistes et Neurologistes* the announcement of the formation in France of a league devoted to mental hygiene, "Ligue Française de Prophylaxie et d'Hygiène Mentales."

In 1920 the Ministry of General and Social Hygiene established a Committee of Mental Hygiene. In order to give greater efficiency to this official committee, the league above mentioned was organized upon the suggestion of Dr. Edouard Toulouse, an honorary member of our association, who became president of the league.

The League has the same aims as the National Committee for Mental Hygiene of this country, the work of which is so well known. We trust that it will receive in France the same hearty support and recognition that has been accorded its sister organization in America.

The League proposes to study all questions bearing upon the prevention of mental maladies, and the conservation of the mental equilibrium of individuals and communities.

It desires to improve the methods of treatment of mental disorders; to promote voluntary admissions to institutions, both public and private, and to that end has already conferred with the public authorities.

The care and training of abnormal children will also occupy the attention of the League, and already a communication has been addressed to the public authorities relative to a better application of the law of April 15, 1909, which looks to the creation of special educational facilities for abnormal persons, which law has up to the present been enforced in a most desultory manner.

The active members of the League are recruited not only from the medical profession, but from all persons interested in social progress, magistrates, educators, members of the bar, manufacturers, public officials, officers of the army and navy, in short from all whose interests or work are touched by the work of the League.

The League desires to enter into fraternal relations with similar organizations, and to acquire groups of foreign correspondents. It believes, and correctly, that its work is one which is not alone of national but of international importance.

Correspondence should be addressed to Dr. Genil-Perrin, Secrétaire de la Ligue de Prophylaxie et d'Hygiène Mentales, 99 Avenue de la Bourdonnais, Paris, 7^eme., France.

THE CELEBRATION AT BLOOMINGDALE—THE LABORATORY DEDICATION AT UTICA.—Two important events of psychiatric interest are recorded elsewhere in these pages.

Through the courtesy of Dr. William L. Russell, medical superintendent of the Bloomingdale Hospital, and the kind co-operation of Dr. Karl M. Bowman, assistant physician, we are able to present an account of the Bloomingdale celebration, with an abstract of the papers and addresses which formed a part of the program. We hope to be able to publish in the October JOURNAL a more extensive account of the dedication of the George Alder Blumer Laboratory at the Utica State Hospital than we are able to present at this time.

Bloomingdale has had a long active and most useful career. It starts upon its second century of existence as a separate department of the New York Hospital under the most favorable auspices. Under its present medical director it has taken on new life and increased vigor, and has assumed a position characterized by most efficient clinical and scientific work.

Its parent institution, the New York Hospital, of which it is the department for mental and nervous disorders, points with pride to its Royal Charter, granted in June, 1771, and its many years of efficient and noteworthy service to the sick and injured.

The foundation stones of the hospital were laid in 1773, and in 1775 the nearly completed building was seriously damaged by fire. The War of the Revolution followed, the buildings were

occupied by the British, and not until 1791 was the hospital opened for patients.

In the following year the governor directed the admission of the first mental case, and thereafter until 1808 these patients were treated in the general hospital building, in most instances in special apartments in the basement. In 1808 a separate building was erected, at a cost of \$56,000, adjoining the hospital, and called the "Lunatic Asylum," and here until 1821 all mental cases were treated.

It is undoubtedly due to the philanthropic efforts of Thomas Eddy, a member of the Society of Friends, and a governor of the hospital that the first Bloomingdale Asylum was built. Thomas Eddy's long-forgotten communication to the Governors of the New York Hospital, on April 4, 1815, was brought to light by Dr. Russell four years ago, and through his courtesy, we were able to reproduce it in the JOURNAL for January, 1917. Mr. Eddy's communication affords most interesting reading, and gives a picture in miniature of the views held at his time regarding mental disorders and their treatment. He gained much in support of his argument from the writings and experience of Samuel Tuke, of the York Retreat, in England; and says that his mind was "considerably enlightened by perusing the writings of Doctors Creighton, Arnold and Rush."

He proposed that grounds of not less than ten acres in extent be purchased by the governors, conveniently situated within a few miles of the city; that a substantial building be erected to accommodate fifty patients, the grounds to be embellished with walks and gardens for the exercise and amusement of the patients.

This communication was presented in April, 1815, referred to a committee, and on July 3 the committee reported in favor of the project; whereupon the governors appointed Thomas Eddy, John A. Murray and John Aspinwall to be a committee to look for a suitable spot of land and make a purchase thereof, if, in their opinion, it appeared necessary.

On August 1 the committee reported that "Another building for the use of those unfortunate persons who have lost the use of their reason is not only advisable but seems to be absolutely necessary." It also reported that it had purchased at Bloomingdale part of the estate of Gerard Depeyster, thirty-eight acres in

extent, subsequently increased to seventy-seven. A smaller lot of ground, the committee said, might suffice, but it counted it "advisable to prepare for a period that must certainly come; a period in which such a lot will be needed and not easily obtained."

It will be seen that these early governors of the New York Hospital were men of vision; but this was not their sole characteristic, they were men of action. Less than four months had passed since Thomas Eddy's communication had been received urging the removal of the insane to a new location, separate from the general hospital, with grounds and walks and gardens, and the grounds were purchased, the site prepared, and plans were being discussed, not only for the erection of the buildings necessary, but for the conduct of the new institution, and an improved method of care and treatment.

The student of psychiatry who ignores the past, who fails to inform himself of the ideals which actuated the men of the early days in the long struggle which has brought us to our present era, who does not inform himself concerning the problems which confronted them and the methods which they devised in their solution, misses much which would serve to enlarge his mental horizon, which would elevate his mental standards and stimulate his intellectual growth.

Such celebrations as that at Bloomingdale in May last, are therefore to be welcomed as among the best methods of calling attention to these things, too often neglected and forgotten in our every-day toil and moil. May we have more occasions such as the one so well arranged and carried out by Dr. Russell and the Board of Governors of the New York Hospital.

The dedication at Utica of a laboratory named in honor of Doctor George Alder Blumer was an event, which though different in character and purpose, deserves to rank with the celebration at Bloomingdale.

It was at Utica, under the late Dr. John P. Gray, that the first definite attempt in any institution for the insane in this country, at laboratory work and pathological investigation was made.

First in 1868 by Dr. Hun, then by the late Dr. Walter Kempster, and for some years by Theodore Deecke, more or less systematic pathological work was carried on. Unfortunately in most

instances there was no collaboration between the clinical workers in the wards and the studies in the laboratory, and not much of real worth resulted.

The institution at Utica had long held a high rank among similar institutions throughout the country.

Dr. Gray demanded of his staff the best that was in them in the way of medical work. His assistants were selected from men who had received previous general hospital training, and solely because of their presumed qualifications for intelligent medical work.

The results of this broad-minded policy on the part of Dr. Gray were soon manifest in the rapid promotion of his assistants to positions of responsibility in other institutions. It has been said, and with truth, that more medical superintendents of other hospitals were trained at Utica than in any other three institutions in the country.

Of the men who went out from Utica none has been more worthy of the honors which have come to him than Dr. George Alder Blumer.

He came to Utica in 1880 as fourth assistant physician. By reason of changes in the staff incident to the promotion of the late Dr. J. B. Andrews to the directorship of the Buffalo Asylum, and the resignation of others, he was, in December, 1884, the senior assistant.

In 1886, upon the death of Dr. Gray, he became medical superintendent, which position he held until called to the charge of the Butler Hospital, Providence, R. I., in 1899.

At Utica, he was a member of the staff of this JOURNAL, and its editor-in-chief from 1886 till 1894, and he again became a member of the editorial staff soon after it became the property and organ of The American Medico-Psychological Association.

Of his work at Utica an editorial in the *Utica Daily Press* of June 6, 1921, written, we suspect, by Mr. George E. Dunham, president of the Board of Managers of the Utica State Hospital, and editor of the *Press*, speaks in glowing terms. We extract the following from the editorial:

It was a very handsome and richly deserved compliment and tribute paid to Dr. G. Alder Blumer at the State Hospital Saturday when the fine new research laboratory was named and dedicated in his honor. It

is now more than four decades ago that he came, a studious youth, to that institution to accept the lowest place on its staff of physicians. By doing faithful, conscientious work he earned and gained promotion and following the death of Dr. John P. Gray was made its superintendent. He was still a young man at that time but had the knowledge and the initiative, the character and the executive ability to make a splendid success of his administration. He was not long in introducing innovations in the service, which at first opposed or looked at askance, proved their undisputed value and have become established as the correct procedure not only in this hospital but everywhere. In those days superintendents and managers had much more latitude and responsibility than now and the young man's administration met every requirement, was enlightened and always progressive.

* * *

When at his order all physical restraint was abandoned at this "lunatic asylum" as it was then called, it was a step so far in advance that even the experts of those times in psychiatry viewed it with alarm and said it was taking an unwise and unwarranted hazard. The opposite proved to be the fact and there came more quiet, more comfort and more recoveries on the wards. In due course other institutions followed this example with salutary results. Suggestion from the same source changed the name from one which struck fear to those who read or heard it to "The Utica Hospital" and again there was very hearty approval and general adoption.

* * *

Many instances and occasions might be cited by those who know the facts to show not only that Dr. Blumer had exceptional fitness for the work to which he dedicated his life but as well to prove that he made exceedingly valuable contributions to the science which aims at doing the best possible for those mentally unbalanced. The advances made by him at Utica have had unlimited influence and changed the whole course of practice and procedure in institutions of this class. He was counted by the cautious as ahead of his time, but the times, appreciating his judgment, made haste to catch up with and follow in his footsteps.

* * *

There is no professional or personal honor too high to be conferred upon a man of this splendid achievement. Dr. R. H. Hutchings, himself a distinguished alienist, and now superintendent at Utica, appreciating this accomplishment, suggested the propriety of naming the new, commodious and modernly equipped building now ready for occupancy, "The Dr. George Alder Blumer Research Laboratory," and the managers were unanimous in approval. It is a handsome honor worthily bestowed. It is fitting that this monument to the memory of what he did for the science to which he has all his life been devoted should be at the institution where he was first a superintendent with the authority to put into practice the theories in which he had faith.

At the Butler Hospital Dr. Blumer under wholly different conditions and surroundings maintained the reputation won at Utica and very measurably added thereto.

The editorial from which we have quoted speaks of days when "superintendents and managers had more latitude than now."

Dr. Blumer has never been a time-server, and when centralized authority interfered with freedom of action, and put its ban upon initiative he, at no small risk, was outspoken and resistant to what he and others considered bureaucratic despotism. Even those who opposed and sought to repress him, could but admire, we believe, his persistent protests and opposition, which were always in the open, and always devoid of intrigue.

The bronze tablet in the entrance hall of the laboratory commemorates Dr. Blumer's services at Utica, referring to him as one "whose wisdom, foresight and humanity contributed to the advancement of his profession, to the sum of human happiness, and to the dignity of life." What better encomium could a man desire or receive. To have added to the sum of human happiness to the dignity of life, surely meets the most worthy ambition.

In addition Dr. Blumer has attracted to himself "love, obedience, troops of friends." May he live long to enjoy the honors which have come to him. We can be certain, however, that his days will not be spent in contemplation over these, but in still further effort for his profession and for humanity.

A PORTRAIT OF BENJAMIN RUSH.—Through the kindness of Dr. Lloyd P. Shippen, of Washington, D. C., who owns the original, we are able to reproduce for the readers of the JOURNAL a little known, and we believe very excellent portrait of Doctor Benjamin Rush, the first American psychiatrist.

Of William Haines, the engraver of this portrait, Stauffer (American Engravers upon Copper and Steel. The Grolier Club of the City of New York: 1907) says:

This excellent engraver of portraits, etc., in the stipple manner came from England to Philadelphia in 1802. He opened a studio at 178 Spruce St., and advertised that he painted portraits in water colors in a style entirely new in the United States"; and work of this description seen by the writer proves that Haines was a master of this branch of his art. He produced a number of good portrait plates for American publishers and he also drew for other engravers.



Painted by Kneller & engraved by W. Haines.

*Benjamin Rush: M.D.
Professor of Medicine
in the
University of Pennsylvania.*

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Haines returned to England about 1809, as his name disappears from the Philadelphia Directory in 1810; and a subject plate engraved by W. Haines was published in London in 1809. He was working in London some years later than this.

Among the portraits engraved and published by Haines, in addition to the one reproduced in these pages of Benjamin Rush, were portraits of Drs. Caspar Wistar, Benjamin Smith Barton and William Shippen, Jr., all professors in the medical school of the University of Pennsylvania.

It is probable that the portrait here reproduced was given by Benjamin Rush to his friend and colleague, William Shippen, Jr., from whom it came to his descendant Dr. Lloyd P. Shippen, in exchange for the portrait of Shippen, engraved by Haines, which is the only one of the four bearing a date, 1805, which fixes approximately the date of the Rush portrait.

A NEW DEPARTMENT IN THE JOURNAL.—In order that the JOURNAL may be in a greater degree the medium for transmitting to our readers news relating to the Association and to hospitals we have instituted a department headed Association and Hospital Notes and News.

Through this department, the Secretary of The American Psychiatric Association will transmit information concerning the Association to its members, all of whom in the future will receive the JOURNAL, and it will be used also, we hope, by other officers of the organization as a medium of communication. Its pages will also be open to all members who may have information to transmit of interest to their fellow members.

It is hoped that medical officers of hospitals for mental disorders throughout the country will keep us and their co-workers in touch with their work by supplying us with news items.

For a long time the JOURNAL maintained the Half-Yearly Summary, which was intended to be a clearing house of institutional news. For some time, and particularly during the World War, we found it extremely difficult to obtain items of news, and reluctantly the Half-Yearly Summary was discontinued. Now that assistant physicians have returned from army work, and the stress of double duty has in a large measure been relieved, we trust that

we shall be encouraged in this new departure by a regular receipt of interesting news items.

The publication of the list of appointments and resignations will be continued as in the past. It is important, as noted elsewhere, that this list shall be as correct as possible, both for the information of the secretary of the Association, and our own.

Association and Hospital Notes and News.

THE MEETING OF THE ASSOCIATION IN BOSTON.—Several things of importance in the history of the Association, and to its future occurred at the seventy-seventh annual meeting in Boston.

The amended constitution changes the name to The American Psychiatric Association, a change which appeared to meet with general favor.

The Secretary-Treasurer's annual report revealed the fact that when the volume of *Transactions* for the meeting last year was published, there would be a deficit of several hundred dollars in the Treasury, unless the dues were materially increased. Since 1892 active members have paid five dollars per annum and associate members two dollars. To each member the annual volume of *Transactions* has been sent. With increased cost of paper and printing the cost of the publication of these volumes has steadily risen, while the receipts from dues, notwithstanding the steadily increasing membership, has not kept pace with the growing expenditures.

For three or more years the cost of the volume sent associate members has been more than the dues received. Each volume for 1919 cost over 50 per cent more for each associate member than he paid in dues, and more than 60 per cent of the amount received from each active member.

It will readily be seen that this was bad financing but no one could be held accountable, least of all the indefatigable Secretary-Treasurer, who could only collect such sums from members as was directed by the Council, and who was expected to promptly meet all bills presented.

There have been many members of the Association who have long felt that the publication of an annual volume was unnecessary. The JOURNAL has always promptly published the proceedings of each annual meeting, and, the majority of the papers read at the various sessions. It has been since 1894 the property and official organ of the Association, and should be in the hands of every member.

After due deliberation the Council recommended to the Association that the dues for 1921-22 be made seven dollars for active, and four dollars for associate members; that the volume of *Transactions* for the meeting at Cleveland in 1920 be published, and that thereafter no further volume of *Transactions* be issued. To supply the members with the proceedings, papers and discussions, it was the recommendation of the Council that the JOURNAL, commencing with the July 1921 issue be hereafter sent to each member of the Association, a certain specific portion of the dues of members, being paid to the publishers of the JOURNAL for each member receiving the JOURNAL.

These recommendations of the Council were adopted without a dissenting vote.

Every member of the Association will, therefore, in the future be on the subscription list of the JOURNAL. No bills for subscriptions, however, will be sent out. When he pays his dues, his subscription is automatically credited to him, and turned over to the JOURNAL publishers.

It will be seen by every member that two things are essential on his part to make this plan work smoothly and successfully. These are prompt payment of his dues and the immediate notification of the Secretary of any error in his address, or of any change thereof so that there be no delay in the receipt of the JOURNAL. The JOURNAL, under its new name THE AMERICAN JOURNAL OF PSYCHIATRY, is now brought in close relation with every member of the Association. Each one has a vested interest in the publication and should do everything in his power to advance its interests. A certain proportion of the members of the Association have been subscribers to the JOURNAL. Some of these have paid their subscriptions in advance. A list of all such payments has been furnished the Secretary-Treasurer. Every member who has paid his subscription will receive a credit therefor on his bill for dues when sent out.

As prices approach a normal level we can confidently predict that the cost of publishing the JOURNAL will decrease and with the decrease there will occur a corresponding decrease in the dues of members. At the present rate for dues, with the sum set aside for payment of subscription to the JOURNAL there is no publication covering a special field in medicine, which is placed in the hands

of subscribers at as low a rate, or which furnishes a larger amount of reading matter.

The roll of membership as corrected to the date of the annual meeting contains 987 members. The new members elected at the Boston meeting bring the membership well beyond a thousand.

It has been a custom for years to promote the Vice-President to the presidency, but the nominating committee this year received a positive intimation from Dr. Sanger Brown, who was elected Vice-President in 1920, that the condition of his health would prevent his acceptance of the office of President, if elected.

Dr. Brown's many friends in the Association regretted this decision on his part and particularly the cause which made such a decision necessary. They were happy to welcome him at the meeting and earnestly hope that his health will rapidly improve. The nominating committee met the situation which confronted it in an excellent manner.

Dr. Albert M. Barrett of Ann Arbor, Mich., was nominated for President, Dr. Henry W. Mitchell, of Warren, Pa., who has so well served the Association as Secretary, for Vice-President and Dr. C. Floyd Haviland of Middletown, Conn., for Secretary-Treasurer. These nominations were unanimously confirmed by the Association.

This issue of the JOURNAL contains Dr. Copp's address as President and the paper of Dr. Schichi Uyematsu, with the discussion thereof read on the evening of the first day's session.

The ladies who accompanied their husbands to the meeting were most hospitably entertained, every arrangement for their comfort and pleasure having been made by the committee of arrangements, aided by an auxiliary committee of ladies from Boston and vicinity. They were anxious that some formal acknowledgment of their appreciation of the many courtesies extended to them should be made to the committee and to the ladies who assisted it, which we have promised to do for them, and which we take this occasion to express.

THE CELEBRATION AT BLOOMINGDALE.—The following is an account of the celebration of the one-hundredth anniversary of the opening of Bloomingdale as a separate department of the New

York Hospital, with an abstract of the addresses and papers read, prepared by Dr. Karl M. Bowman, assistant physician at Bloomingdale Hospital.

The Society of the New York Hospital celebrated the centennial of the founding of Bloomingdale Hospital as a separate department for the treatment of mental diseases, on Thursday, May 26th, 1921. Over a thousand invitations were issued and a large audience, including many of the prominent psychiatrists and neurologists of this country, was present. The exercises were held at Bloomingdale Hospital, White Plains, N. Y., and consisted of the following program:

Invocation. Rev. Frank H. Simmonds.

Greetings from the Pennsylvania Hospital (founded 1751). Dr. Owen Copp, Physician-in-Chief and administrator, Department for Mental and Nervous Diseases.

Greetings from the Medical Profession. Dr. Geo. D. Stewart, President N. Y. Academy of Medicine.

ADDRESSES.

"Historical Review." Edward W. Sheldon, Esq., President of the Board of Governors.

"The Contributions of Psychiatry to the Understanding of Life Problems." Dr. Adolf Meyer, Professor of Psychiatry, Johns Hopkins University Medical School.

"The Importance of Psychiatry in General Medical Practice." Dr. Lewellys F. Barker, Johns Hopkins University Medical School.

"The Biological Significance of Mental Illness." Dr. Richard G. Rows, Director Neuro-Psychiatric Hospital, London, England.

"The Relation of the Neuroses to the Psychoses." Dr. Pierre Janet, Professor of Psychology, College of France, Paris.

"Remarks on the Medical Development of Bloomingdale Hospital." Dr. William L. Russell, Medical Superintendent Bloomingdale Hospital.

Mr. Edward W. Sheldon, President of the Board of Governors, welcomed the visitors and gave a brief history of the Hospital.

"In 1769, the Colony of New York, with a population of about 300,000 of whom about 20,000 lived in the City of New York, possessed not a single hospital." But due to a realization of this need, plans were perfected, money raised and on June 11th 1771, a Royal charter was granted to the Society of the New York Hospital. But due to an accidental fire in 1775 and the War of the Revolution in 1776, the hospital was not opened for patients

until January 1791. "In September 1792, the governors directed the admission of the first mental case." After a few years, a separate building, to accommodate 75 mental cases, was erected. Later, Thomas Eddy, a philanthropic Quaker, governor of the Society, who had made a special study of the care and cure of mental affections, urged the establishment of a separate hospital for mental cases as well as many reforms in treatment. Accordingly 77 acres of land, occupying what is now the site of Columbia University, were acquired and a building for the accommodation of 200 mental patients was erected. As the only access to the hospital was over what was then known as the Bloomingdale Road, running through the Bloomingdale District, the name Bloomingdale Asylum was selected. On June 1st, 1821, it was formally opened for the reception of patients and continued in operation until 1893, when a new site having been acquired near White Plains and new buildings erected, the present hospital was opened, its name having been formally changed from Bloomingdale Asylum to Bloomingdale Hospital. The present site consists of about 300 acres of ground with buildings for the accommodation of about 350 patients.

Dr. Adolf Meyer, Professor of Psychiatry, Johns Hopkins Medical School, read an address on "The Contributions of Psychiatry to the Understanding of Life Problems."

Dr. Meyer showed how modern psychiatry has given us insight into many problems heretofore closed to us. It gives new meaning to religion, ethics, art, etc. Psychiatry literally means the healing of the soul. Our understanding of religion is broadened if one grasps the principles of modern psychiatry. Religion is not torn down but raised to a higher place in one's life.

"Men must be studied as mutual beings in relation to their daily activities." "Psychiatry has intensified hunger for reality." It explains away many fads and vague gropings of the individuals towards personal harmony such as Spiritism, New Thought, etc. It has direct application to all of the problems confronting an individual and offers a satisfactory solution, hence its value.

Dr. Lewellys F. Barker, of Johns Hopkins Medical School, then read an address on "The Importance of Psychiatry in General Medical Practice." He first gave the reasons why psychiatry had been so widely separated from general medicine. In the begin-

ning, the treatment of mental diseases had not been considered as a part of the duties of a physician, later, when mental diseases were recognized as requiring medical treatment, they were not looked upon in the same light as other diseases. The reasons for the general practitioner's ignorance or lack of interest in, and even aversion to, psychiatry are as follows:

1. "A social stigma still attaches, despite all our efforts to abolish it, to mental disorders and has to a certain extent been transferred to those that study and treat patients manifesting these disorders."

2. Our general education is defective in giving any broad concept of man's place in the universe and an orderly view of the world and man.

3. Our medical schools, with few exceptions, fail to teach psychiatry properly or adequately to link it up with the rest of medicine.

4. "The language of psychiatry is unique and formidable."

5. The overemphasis of psychogenetic factors and apparent neglect of somatogenic factors by some psychiatrists has aroused distrust and suspicion among many.

6. The fear of insanity and stigma of mental disease causes the general practitioner to underemphasize the psychobiological and exaggerates the physical.

7. Psychotherapy is regarded as something mysterious or as something not quite ethical.

8. The rise of specialism has further prevented the general spread of psychiatric knowledge.

The need of closer relations between general medicine and psychiatry was then emphasized and some ways for accomplishing this given.

Following Dr. Barker's paper, luncheon was served on the lawn. A historical pageant was then given with the following program:

PROLOGUE.

The Muse of History (Narrator).
Spirit of the Past (Time).

SCENE I.

Court of King George III. Granting of the Charter.

SCENE 2.

Pinel à la Salpêtrière.

SCENE 3.

Portraits: Personalities of The Past.

Thomas Eddy, Esq. of the Board of Governors 1815-1827.

Dr. James Macdonald, First Resident Physician 1825-1837.

Dr. Pliny Earle, Organizer 1844-1849.

Miss Eliza Macdonald, daughter of Dr. Macdonald, unveils the portrait of her father, and Dr. William L. Russell that of Dr. Pliny Earle.

SCENE 4.

Dorothy Lynde Dix Before a Legislative Committee.

SCENE 5.

Occupational—Recreational Activities.

SCENE 6.

Inspirations.

The afternoon session opened with an address on "The Biological Significance of Mental Illness" by Dr. Richard G. Rows, Director Neuropsychiatric Hospital, London, England. Dr. Rows came to this country by special invitation of the governors of the hospital to read his paper.

Dr. Rows stressed not only the necessity of recognizing what rational powers remain to the patient but also of inquiring "how much in their disturbed mental activity could be considered a rational reaction to the stimuli which have operated and still may be operating on them."

We must determine two things: first, what is the normal standard; and second, to what extent are the patient's reactions abnormal in kind to the driving stimulus? It is conceded that they may be abnormal in degree but are they abnormal in kind?

Proper emphasis has not been given to distinguishing between the primary and secondary symptoms of mental disease. The first evidences of mental disturbance consist in some difficulty in carrying out ordinary mental processes, some difficulty in exercise of the functions of perceiving, thinking, feeling, judging and acting and any disturbance of the harmonious activity of these functions

must give rise to an emotional condition of anxiety and depression." But in any disharmony that may occur, it must be recognized that the mental mechanisms affected are those with which the patient was originally endowed (as modified by training and environment). "There is no new mechanism introduced to produce a mental illness but a putting out of gear of those common to the race and their disturbance is the result of the action of influences which may befall any one of us, unbearable ideas with which some intense emotional state is intimately associated."

The secondary symptoms are the obvious signs of disease and may be merely an intensification of the primary symptoms or "may represent efforts on the part of the patient to escape from or explain the primary symptoms."

"We, therefore, must not accept the outward and visible signs at their face value but attempt to discover what past experiences in the life of the patient have led to such a disturbance of function, to such a change in his mental activity."

While these past experiences may have occurred at any previous time of life, childhood is the most important and common period for such experiences to occur. These unfortunate experiences of childhood may cause a later breakdown by warping development, by instilling a lack of self-confidence or by causing a predominance of one emotional tendency.

It is necessary for the physicians to discover and understand these past experiences if he is to treat the patient properly.

Emotions are accompanied by physical changes, changes which are specific for each emotional state. The ultimate effect and interplay of internal glands, nervous system and emotional states in relation to revived memories may be of great importance in understanding mental disease.

Dr. Pierre Janet, Professor of Psychology in the College of France, then gave his address "The Relation of the Neuroses to the Psychoses."

Dr. Janet, likewise, journeyed to this country at the special invitation of the Board of Governors to give this address.

After presenting the best wishes of the French Government, and of various French scientific societies, he entered on the discussion of his subject.

He called attention to the vastly different public opinion at the present time in regard to mental disease compared with a hundred years ago and stated that "this transformation of ideas has taken place, in a great measure, thanks to the studies devoted to neuroses."

In earlier times, the queer behavior of the neurotics was noticed but it was felt that these individuals had "all their reason" and "they were not expelled from society like the poor lunatic."

During the 19th century, the radical division of neuroses and psychoses was accepted as a dogma. The study and treatment was different, neuroses were studied publicly, the examination was on elementary sensibilities, the movements of limbs, and especially reflexes; the insane were studied more closely from the mental view and in private. When psychotherapy "by reasoning with and moralizing the patients was being developed," contrary to what one might have supposed, it was applied to neurotic patients alone.

Charcot modified the concept of neuroses. He showed that neurotic sufferers presented disorders in their thoughts, and many apparently physical states were caused by this.

But "it seems to me exaggerated today to see in neuroses those psychological disorders alone" and not circulatory, endocrine and sympathetic disturbances. Still there was reached the conclusion "that neuroses were at the root, in reality, diseases of the mind."

"If such is the case, what becomes of the classical distinction between neuroses and psychoses?" It cannot be said that psychoses are of longer duration. Nor can it be said that there is in psychoses always less insight on the patient's part. Neither does the presence or absence of organic lesions determine the difference. "Neuroses as well as psychoses are much more likely to be diseases with unknown lesions than diseases without lesions and it is impossible to take this characteristic into account to distinguish the ones from the others."

The concept of insanity now has no precise medical significance and "is now but a term of the police language." "All disorders of the mind oblige us to modify our social conduct towards the patient, but only in a few cases are we obliged to modify at the same time our legal conduct; and these are the sort of cases that constitute lunacy."

Yet this does not satisfy, since some psychoses are not police problems and some neurotics are.

"Conduct is a special form of reaction by which the living being adapts himself to the society to which he belongs." There are different levels of conduct, the lowest being the reflexes and the highest, the social acts. "There is, in each particular function, quite a superior part which consists in its adaption to the particular circumstances existing at the present moment." "If one is willing to understand by the word "evolution" the fact that a living being is continually transforming himself to adapt himself to new circumstances, neuroses and psychoses are disorders or halts in the evolution of functions, in the development of their highest and latest part." "The common character of neuroses and psychoses is that this diminution of vitality bears upon the highest functions of government."

In many cases it appears that there is an increase or exaggeration of this function, but examination shows that it is really behavior at a lower level. "The agitation consists in an activity, more or less complete, in inferior tendencies very much below those the subject should normally utilize."

There is another important accompaniment to the disappearance or diminution of superior actions, "both the normal effort and the call upon reserves for executing painful acts are suppressed. There exists visibly a lowering of level and it is right to say that these patients are below themselves."

"The difficulty of accomplishing superior acts and the exhaustion resulting from the accomplishment renders them fearful to the patient who has the fear or phobia of these acts just as he has the terror of that depression which gives the feeling of diminution of life."

Certain acts raise the psychological tension instead of exhausting and hence the patient feels bound to repeat incessantly certain peculiar acts.

In certain cases, there is a certain difference in degree between neuroses and psychoses.

"The province of neuroses and psychoses is intermediate between that of rational errors and that of organic diseases of the nervous system."

"We are capable of wills and beliefs of a superior order when we reach decision after a work of reflection." "Lower, there exist wills and beliefs but they are formed without reflection. They are the result of an immediate assent which transforms verbal formulas into wills and beliefs as soon as they strike the attention, as soon as they are accompanied by a powerful sentiment. The immediate assent is the form of these tendencies."

"If one wished to establish a scientific distinction between neuroses and psychoses, I should say, in a summary fashion that in neuroses the reflection alone is disturbed, that in psychoses the immediate assent itself is affected."

"Neuroses are, therefore, the intermedium between the errors and the faults which appeared to us almost normal and alienation which seemed exceptional and distant from us."

Dr. William L. Russell, Medical Superintendent, then closed the program with "Remarks on the Medical Development of Bloomingdale Hospital."

He stated that to review that past was profitable in that it guarded us from many errors. The establishment of Bloomingdale was due to the initiative of laymen rather than physicians. It contemplated treating mental disease by "moral treatment" alone and discarded the various organic theories and treatments prevalent at the time. It was not contemplated that physicians have full control of the resources for applying moral treatment. The present system of administration by which the chief medical officer is also the chief executive officer was the result of a long process of evolution. Pinel, many years before Bloomingdale Asylum was opened, had shown that management and discipline of the hospital was a most powerful agent in the treatment of the patients.

In the beginning, the form of organization of Bloomingdale Asylum was similar to that of the New York Hospital. There was a layman for superintendent or warden with two men and three women keepers to aid him in the control and management of the 75 patients. There was an attending physician who visited once a week and a resident physician, neither of whom received salaries. Gradually the physicians were given more power until 1831, the committee stated that the new regulations "placed the normal treatment on the physician alone, under the direction of

the Asylum Committee, and that the responsibility remains with him alone." In 1837, the physician was, for the first time, given "the power of appointing and discharging, at pleasure, all the attendants on the patients." It was not until 1877 that the present form of organization in which the chief physician is also the chief executive officer of the institution was adopted. All American institutions and most, if not all, of those in other countries are now similarly organized.

The resources for diagnosis and treatment at Bloomingdale Hospital have been steadily developed. Especial attention has been given to, and special departments developed for, the application of occupational and recreational therapy but, at the same time, all the equipment of modern medical science has been made use of, laboratories, X-rays, dental and surgical operating rooms, massage and hydrotherapy departments, and all other means of determining disease process and applying proper treatment are utilized. "It can now be clearly seen that the problem to be solved relates to the whole personality of the patient, including his physical and mental constitution, the physical and mental factors which may be operating to produce his disorder and the environmental conditions to which he has been and may again be exposed."

The scope of psychiatry has greatly broadened and general knowledge concerning it and facilities for applying this knowledge have been also increased. To fulfil the possibilities for greater usefulness the following improvements are suggested; a department in the city at the general hospital with an outpatient department and with facilities for receiving patients into the hospital; a suitable home or occupational colony for convalescent patients; the more extended use of the hospital for teaching purposes; and more intimate contact with outside agencies for extending psychiatric knowledge and in applying it to the prevention and management of mental disease outside the hospital.

THE DEDICATION OF THE GEORGE ALDER BLUMER LABORATORY.
—On Saturday June 4th, upon invitation of the Managers and Medical Superintendent of the Utica State Hospital, Utica, N. Y., a number of physicians, many of whom had been in attendance at the Association meeting in Boston; as well as many citizens

and physicians from Utica and vicinity, gathered at the hospital, to take part in the dedication of the new laboratory building erected at the hospital, and named, by vote of the Managers, in honor of Dr. G. Alder Blumer, formerly assistant physician and for several years medical superintendent of the hospital.

Shortly before eleven o'clock in the morning, the physicians in attendance at the exercises assembled in the amusement hall of the hospital to take part in the scientific program.

The session was opened by Dr. Richard H. Hutchings, Medical Superintendent, who paid a glowing tribute to Dr. Blumer, and then announced the following program:

"Pathology as related to Psychiatry." Dr. James V. May, Superintendent, Boston State Hospital, Boston, Mass.

"The Integrative Function of a Laboratory." Dr. Adolf Meyer, Professor of Psychiatry, Johns Hopkins University, Baltimore.

"Transitory Mania and Epileptiform Migraine." Dr. J. Montgomery Mosher, Professor Mental Diseases, Albany Medical College, Albany, N. Y.

"Some Problems of the Organic Mental Reaction Types." Dr. George H. Kirby, Medical Director, Psychiatric Institute, New York City.

"Suggestions for Treatment of Syphilis." Dr. John R. Ross, Superintendent, Dannemora State Hospital, Dannemora, N. Y.

"Research in Psychiatry." Dr. H. M. Pollock, Statistician, New York State Hospital Department, Albany, N. Y.

At the adjournment of the morning session lunch was served on the lawn in the quadrangle surrounded by the hospital buildings, which afforded an opportunity for social greetings, and the exchanges of reminiscences by former assistant physicians at the hospital several of whom were present.

After luncheon the audience adjourned to the front of the laboratory building, where seats had been provided under the trees and a speakers' stand erected.

The afternoon session was presided over by Mr. George E. Dunham, President of the Board of Managers, who opened the meeting with some felicitous remarks, and then read a letter from Dr. Stephen Smith formerly Commissioner of Lunacy for New York state, now in his ninety-ninth year, who had been asked to be one of the speakers on the occasion.

Following the reading of Dr. Smith's most interesting letter Mr. Dunham introduced the speakers of the afternoon session

in the following order: Dr Edward N. Brush, Superintendent Emeritus, Sheppard and Enoch Pratt Hospital; Dr. Charles W. Pilgrim, President N. Y. State Hospital Commission; Dr. Charles G. Wagner, Medical Superintendent of the Binghamton State Hospital, all of whom had been assistant physicians at Utica, and associates of Dr. Blumer.

Following the medical speakers, all of whom indulged in reminiscent tales of their early days at Utica and their relations with Dr. Blumer, and who were unanimous in the tribute of affectionate regard and admiration for their friend and former associate, Hon. P. C. J. De Angelis, late Justice of the Supreme Court was introduced. Mr. De Angelis was a member of the board of managers when Dr. Blumer was promoted to the superintendency at Utica. He paid a most sincere tribute to Dr. Blumer.

Dr. Blumer's chief characteristic, he said, and he believed, the secret of his success, was his devotion to duty.

Following Mr. De Angelis, Professor Walter G. Everett, of the chair of Philosophy at Brown University, Providence, and one of the trustees of Butler Hospital, representing the trustees at the dedicatory exercises, presented the greetings of the board which he represented. Referring to Dr. Blumer's career at the Butler Hospital he said: "By his professional and administrative skill he has advanced the standards of our hospital work. By his devotion to the interests of our city and state he has won a high place as a citizen. By his love of literature and his mastery of English style, he has entered into the intellectual life of the community."

Dr. Henry W. Mitchell, medical superintendent, Warren, Pa., State Hospital, representing the committee appointed at the meeting of The American Psychiatric Association in Boston, to attend the dedicatory exercises on behalf of the Association, then presented, with some very appropriate remarks, the resolutions adopted by the association, commemorative of the occasion, and congratulatory to Dr. Blumer.

Mr. Dunham then spoke most feelingly in behalf of the managers, the medical superintendent and physicians and nurses past and present, as well as for the many patients who recalled Dr. Blumer's ministrations, of the services of Dr. Blumer to the insti-

tution, to the state and to the cause of medical science and hospital administration.

Dr. Blumer was then presented and met a most difficult situation, in replying to the speakers who had preceded him, in a most graceful and admirable speech.

We hope to present abstracts of all the papers and addresses in this department of the JOURNAL in the October number, as well as a picture of the laboratory building.

The bronze tablet in the entrance hall of the laboratory, in a few admirably chosen and arranged phrases commemorates the services of Dr. Blumer and dedicates the building to the memory thereof. The inscription is reproduced below:

GEORGE ALDER BLUMER
RESEARCH
LABORATORY

1920

This tablet commemorates the
services of

DR. GEORGE ALDER BLUMER
Psychiatrist, Editor, Author.
ONE-TIME PHYSICIAN AND
SUPERINTENDENT
of the

UTICA STATE HOSPITAL

Whose wisdom, foresight and humanity contributed to the advancement of his profession, to the sum of human happiness and to the dignity of life.

ERECTED BY THE BOARD OF
MANAGERS

Geo. E. Dunham, President
Edward H. Coley, D.D., Secretary
Mary Isabel Doolittle
Frederick T. Proctor
Elizabeth W. Kellogg
William G. Mayer
Clarence E. Williams

* * * * *

Richard H. Hutchings, M.D.,
Superintendent

SOME IMPORTANT LAWS.—The following acts have been placed upon the statute books of the commonwealth of Massachusetts during the last session of the legislature and have been approved by the governor.

Dr. L. Vernon Briggs, of Boston, who has supplied us with copies of the acts, reproduced here, was in a large measure responsible for their introduction and enactment.

[CHAP. 409.]

AN ACT RELATIVE TO THE EXAMINATION OF APPLICANTS FOR REGISTRATION AS PHYSICIANS.

Be it enacted, etc., as follows:

SECTION 1. Section three of chapter one hundred and twelve of the General Laws is hereby amended by inserting before the word "practice," in the fourth line, the word:—psychiatry,—so as to read as follows:—
Section 3. Examinations shall be in whole or in part in writing, in English, shall be of a scientific and practical character, shall include the subjects of anatomy, surgery, physiology, pathology, obstetrics, gynecology, psychiatry, practice of medicine and hygiene, and shall be sufficiently thorough to test the applicants' fitness to practice medicine.

SECTION 2. This act shall take effect July first, nineteen hundred and twenty-three. [*Approved May 19, 1921.*]

[CHAP. 415.]

AN ACT PROVIDING FOR AN INVESTIGATION BY THE DEPARTMENT OF MENTAL DISEASES AS TO THE MENTAL CONDITION OF CERTAIN PERSONS HELD FOR TRIAL.

Be it enacted, etc., as follows:

Chapter one hundred and twenty-three of the General Laws is hereby amended by inserting after section one hundred the following new section:—
Section 100A. Whenever a person is indicted by a grand jury for a capital offense or whenever a person, who is known to have been indicted for any other offense more than once or to have been previously convicted of a felony, is indicted by a grand jury or bound over for trial in the superior court, the clerk of the court in which the indictment is returned, or the clerk of the district court or the trial justice, as the case may be, shall give notice to the department of mental diseases, and the department shall cause such person to be examined with a view to determine his mental condition and the existence of any mental disease or defect which would affect his criminal responsibility. The department shall file a report of its investigation with the clerk of the court in which the trial is to be held, and the report shall be accessible to the court, the district attorney and to

the attorney for the accused, and shall be admissible as evidence of the mental condition of the accused. [*Approved May 20, 1921.*]

The Connecticut law, providing for emergency commitments has been rendered more flexible by extending the validity of emergency certificates from ten to twenty days, and by providing that any "reputable physician" may execute an emergency certificate, whether or not a resident of the state.

ELECTION.—Dr. Harold W. Wright, of San Francisco, California, has been elected president of the California Society for Mental Hygiene.

CORRECTION.—In the list of Appointments, Resignations, etc., in the April JOURNAL OF INSANITY, the name of Dr. Walter H. Jillson, recently appointed medical superintendent of the Central State Hospital, Lakeland, Ky., was by an unfortunate error printed Wilson.

CHLOROFORM DELIRIUM—INFORMATION DESIRED.—Dr. Ben Karpman, Assistant Physician St. Elizabeth's Hospital, Washington, D. C., requests that any reader knowing of an uncomplicated case of chloroform delirium communicate with him.

APPOINTMENT.—Dr. David K. Henderson, late resident psychiatrist to the Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, Md., has been appointed Physician Superintendent to the Glasgow Royal Asylum, Gartnavel, Glasgow, Scotland.

Dr. Henderson is a graduate of the University of Edinburgh of 1907. For some time he worked in the Psychiatric Institute of the New York State Hospitals at Ward's Island, New York, under Dr. Meyer, and in 1913 became resident psychiatrist at the Henry Phipps Clinic, on the opening of that institution.

After the outbreak of the World War he returned to Scotland, and was for a time attached to the Glasgow Asylum. Entering the medical service of the British Army he saw service in France and subsequently in Great Britain in the psychiatric wards of military hospitals.

Upon demobilization, Dr. Henderson returned to the Glasgow Asylum, performing the duties of clinical director. His promotion is evidence that he performed these duties, as would be expected, in a highly satisfactory manner.

While still in military service Dr. Henderson obtained a brief leave of absence and returning to the United States married, on October 31, 1917, Miss Margaret Mabon, daughter of the late Dr. William Mabon, for many years Medical Superintendent of the New York State Hospital, Ward's Island, New York, one of the most active and highly esteemed members of the Association.

Book Reviews.

Psychopathology. By EDWARD J. KEMPF, M.D. (St. Louis: The C. V. Mosby Company, 1920.)

One may well hesitate in attempting fairly to set forth the content of this volume within the limits of a brief review. The work is revolutionary and compelling enough to be worthy of independent study before taking a position for defence or condemnation of its principles.

Whether Kempf at one bound carries psychiatry forward to a point which a generation of steady plodding might not achieve, or whether he moulds to a preconceived theory some of the unformed material on mental disease, perhaps time alone can tell. Most of the profession must however agree, that much of the matter presented is far removed from present-day thought and understanding.

Some of the main features of the author's work are as follows:

(1) He applies psychoanalysis to the field of the psychoses and with comprehensive introductions, supplemented by exhaustive case histories, discusses from this standpoint all the commonly accepted groups of mental diseases with the exception of the gross organic types.

(2) By this manner of approach he finds satisfactory mechanisms to interpret the genesis of the neurosis and psychoses and sees in them a profound unity and simplicity.

(3) He offers an attractive hypothesis to establish a physiological basis for those forces of the human organism such as instincts and emotions, which have in the past been left to the psychic realm in contradistinction to the physical. The Freudian wish, according to his thesis, has a clear physiological basis.

(4) He forms a radically novel classification of the psychoses based on dynamic considerations, and clarifies and simplifies it by an ingenious table.

(5) He does not stop with psychiatry, but explains all motive and behavior of mankind from the simplest indulgence of an instinctive craving to the highest strivings and inspirations along purely mechanistic lines, and finds no need for the human soul.

A brief introduction to the volume outlines the material to follow. In this he refers to the work of Sherrington, Pawlow, Bechterew, Cannon, Watson and others as a basis for his physiological conceptions of the Freudian mechanisms. Case histories compose much of the text, and those presented are chiefly the result of studies made at St. Elizabeth's Hospital, Washington, over a four-year period.

Chapter I is largely taken from the author's well-known monograph on the "Autonomic Functions and the Personality." In brief, the main features of this conception are as follows:

(1) The autonomic apparatus comprises all the vital organs, glands of internal secretion, unstriated muscle, and autonomic nervous systems.

(2) The projicient apparatus includes the striated muscles and the cerebrospinal nervous system.

(3) Feelings and desires, or as the author chooses to call them, affective cravings, are constituted by sensory streams flowing from the periphery of different segments of the autonomic apparatus. This applies to complex emotions such as pity or love, as well as to the more simple instinctive needs of hunger or sex.

(4) These feelings, acting as energizers, put the appropriate projicient apparatus in that state of tonus and contraction which will best derive for them satisfaction from the environment.

(5) Thoughts or conceptual images are produced by the sensory (kinæsthetic) stream from the projicient apparatus which has been set in postural tonus by the feelings. These are supplemented by the afferent stream from the special senses.

(6) Consciousness is the reaction of the whole body as a unity to the sensational activity of one or several of its parts.

By the above conceptions the brain loses caste in its relation to the human psyche. In simple terms, we feel and desire with our viscera, think with our muscles and are conscious with our whole body.

The feeling, desire or wish is due to, and is associated with, an uncomfortable autonomic tension which seeks relief through appropriate action of the projicient apparatus. Feelings and cravings are not simple and serial; they are on the contrary simultaneous, multiple, complex and conflicting. Also the stern reality of material environment and social organization are determinants in the possibility of their satisfaction. Chaos is avoided by the development of an "ego," a somewhat mysterious part of the personality, which appears in the first few years of life and gradually builds up a system of affective needs of its own which are only satisfied by conduct in harmony with socialized standards. This ego endeavors more or less successfully to integrate the more primitive cravings into unity with itself. In order to accomplish this object, cravings asocial in character are conditioned during the child's development by experience, precept, training and education, so that they may be satisfied by activity beneficial to the organism as a whole. The symbol has become an important and necessary agent for the relief of uncomfortable autonomic tensions which for obvious reasons cannot be directly appeased. Much of artistic production; and social and religious customs and observances, serve this symbolic purpose.

Conditioning of autonomic needs is never ideally completed and may operate in a direction just the opposite of social adaptation. In other words the individual may be conditioned abnormally as well as normally. Throughout life there is constant conflict between instinctive segmental cravings and the developed ego or personality. The contest is clearly staged as follows: the cravings seek immediate gratification; the ego demands social esteem.

For reasons not obscure, the most difficult field for control and synthesis of cravings is in that of the sex life. Cravings not under control press for independent expression in order to relieve the uncomfortable autonomic tensions which constitute them. If they are sexually perverse or otherwise objectionable the ego opposes with equal vigor their direct satisfaction. In this contest for supremacy various mechanisms are made use of by the ego to force individual destructive segmental cravings to act in harmony with the whole personality. Suppression and repression are the most common methods of handling unruly cravings. By the former process, cravings antagonistic to the social ego are inhibited and not allowed to modify behavior. By the latter process they are put out of consciousness as well as inhibited, and the individual is unaware of their existence. Compensation, a third method, implies the expression of some estimable activity, reflexly initiated by the urge of inferior cravings, which cannot themselves be directly indulged.

All these mechanisms are important and healthy factors in character formation and constantly in action in all normal individuals. Frequently however, due to the weakness of the repressing forces of the ego or to the intensity of the cravings, or both, these mechanisms fail. The walling off of cravings by suppression or repression may be unsuccessful, or compensation may become eccentric and bizarre. Vague consciousness of asocial cravings struggling for expression is the basis for an individual's sense of inferiority. On page 71 it is stated: "The most common inferiorities that are compensated for in a manner that may become pathological are segmental cravings for masturbation and homosexual and heterosexual perversions. This is true of both sexes."

Conflict of the type described is normal. Failure to successfully handle it in such manner is abnormal. By such failure are the psychoses and psychoneuroses produced. Psychoses differ from normal behavior chiefly in degree. Page 55: "In the psychoses the conflict is far more severe than normal due to the vigor of the segment or the weakness of the ego."

Chapter II deals with the psychology of the family. Here is discussed the Family Romance of the psychoanalysts. Kempf agrees with them concerning the influence during formative childhood years of the associates, chiefly the adults of the immediate family. He brings in his physiological conceptions by interpreting this influence as a conditioning for good or ill of the segmental reflexes, or autonomic affective cravings. A series of family situations are presented to show the influence of parents and others on the child and adolescent.

The following quotations illustrate the point of view—page 80: "I am convinced (this conviction is based upon professional experience) that no one can become a functional psychopath who is not greatly so influenced through the intentional or unintentional attitude of his associates." Page 88: "It is a general observation to be made, if looked for, with surprising frequency, that wherever we have an individual male or female, who is conscientiously absorbed in striving to suppress the sexual functions from making him or her aware of their conditioned needs, we have a neurotic

individual as the result." Page 91: "Experience with numerous psychopaths and their families shows that it is almost impossible for a member of a family to develop a psychoneurosis or functional psychosis without the family or some members being involved directly or indirectly, consciously or unconsciously, as a repressive influence that has combined with other causes of stress to bring about the collapse."

Chapter III is entitled, the Universal Struggle for Virility, Goodness and Happiness. Toward these goals the author states the guiding forces of human effort, conscious and unconscious, are directed. To attain them is the aim of all mankind. Failure to attain in at least relative degree marks the psychopath. The following highly philosophical definitions of these terms will outline the concept.

"Virility is the capacity of the autonomic apparatus to compensate, when environmental resistances tend to prevent the fulfillment of its wishes or needs, so as to overcome the resistance and so modify the environment that it will gratify (neutralize) the autonomic cravings. True virility applies not only to the mating competitions and overt sexual functions of the individual, but to his ability to coordinate his functional resources into a means (vocational) so as to win the esteem of his love object, overcome competition, and maintain a relatively influential social place in community or clan. Indifference, inactivity and timidity are conducive to loss of social esteem. Fear of becoming socially inferior stimulates the compensatory striving.

"Goodness is a state of feeling which is aroused when the act or sequence of acts gratifies those wishes of the individual which promote his own career (egocentric) as well as the wishes that promote the interests of the race (altruistic); the race containing the love objects, gives rise to the necessity of being esteemed by the race. In the struggle against perverse cravings, the effort to establish the feeling of goodness is often extremely egocentric, and may even become asocial. This idea of goodness is biological and not puritanical.

"Happiness is felt as the autonomic tensions, becoming gratified, permit the striving postural tensions to change to comfortable tensions; as in the vigorous pursuit of a solution, or result when we feel confident of final success, in contradistinction to the heavy sense of depression when a cause seems hopeless."

In Chapter V, Kempf describes his classification of neuroses and psychoses and this really deserves a review by itself. It is perhaps too much to say that he has condensed the whole science of psychiatry into a two-page outline, but he has come nearer to it than would be deemed humanly possibly. Whatever the defects of this classification may be, one who has studied it comprehendingly must find it a powerful aid to clear thinking when certain obscure clinical pictures are presented to him.

Cases are first grouped as acute, periodic or chronic. Next come the benign and pernicious; and under these, suppression and repression neuroses for the former, and compensation, regression and dissociation neuroses for the latter. Various combinations of these terms are held to meet

requirements for all functional psychoses. A column of old diagnostic terms serves to orient the bewildered novice.

Chapters VI to XIII take up the functional psychoses under both old and new classifications. Anxiety neuroses, psychoneuroses, manic depressive psychoses, paranoia and the three common types of dementia præcox are considered in order.

Suppression or anxiety neuroses include what are commonly called constitutional inferiority, psychopathic personality, psychasthenia, neurasthenia, chronic invalidism, etc. As notable examples of this type, a paper published in the *Psychoanalytic Review*, Vol. V, No. 2, is included, together with a history and analysis of a more modern scientist who was a patient of the author. One regrets to hurry over this fascinating material. In the end we return to the same dominant principle, page 288; "The psychologist meets with almost innumerable varied causes of anxiety, but in one factor they are all the same. The anxiety is due to the suppressed affect trying to force its way through the egoistic resistance in order to obtain relief or gratification." Again on same page it is said, "The most common forms of affective craving which society requires the individual to suppress, and which constitute the most serious personal conflict, are autoerotic or homosexual love, incest, hatred and fear."

Chapter VII is on the repression neuroses. True repression neuroses according to the author include the phobias compulsions and other obsessive states. It is not always made clear in just what manner the suppression and repression mechanisms are distinguished. In general it may be said that in suppression neuroses cravings are inhibited but still remain dynamic enough to produce a state of anxiety and discomfort. In the repression neuroses on the other hand, the cravings are kept subdued by compensatory or substitute activity, as in the handwashing compulsion of the mysophobic, which gives vicarious relief to the underlying craving. This example represents the pathological side of the picture in contrast to the healthy process when the compensatory trend takes the form of artistic creation, invention, or other useful work or interest. Both types of repression, constructive and destructive, are alike in that they give some degree of substitute satisfaction to the cravings. Kempf states, page 293: "All cases in which the repressed affect is resisted by the personality, causing a functional distortion, should be considered as repression neuroses. The individual who has repressed the affect and refuses to regard it as part of his personality, is logically subjected to a mysterious, persistent, pernicious influence from which he can never escape, and this force is liable through a summation of repression or exhaustion of the ego to produce a serious dissociation of the personality."

Elimination and simulation mechanisms for disposing of undesirable affects are described. The former, the more serious as far as possibility of dissociation is concerned is produced by a frank repression, a denial as it were, of the affects' existence. Simulation is the attempt above described, to give some substitute satisfaction to the craving.

The manic-depressive psychoses are interpreted in Chapter VIII along somewhat similar lines. The depressed individual suffers from the inhibition of autonomic affective sources of energy. This inhibition may be due to a preoccupation of thought to control an abnoxious craving; or again result from a regressive process in which the individual temporarily gives up the struggle and solves his conflict by sinking back to a vegetative nursing state. In contrast the happy manic represents an "erotic flight" when without restraint free rein is given to fanciful satisfaction of the compelling cravings. Depression and mania accompanied by anxiety and fear are given special consideration.

Chapters IX to XI are given over to the subject of paranoia and paranoid states. Kempf accepts the classical Freudian concept for the mechanism of these conditions; page 475, he says: "The paranoiacs and paranoid types are always individuals who are biologically inferior to the requirements of the race. They are not able to establish a comfortable heterosexual potency and are constantly forced to struggle in order to control homosexual perverse cravings of which they are fearful, and which they usually refuse to recognize as a part of themselves." Case histories are given with analyses carried out which not only throw new light on the processes involved, but also hold out some glimmers of hope for therapeutic aid in this serious type of psychosis. There is included an illuminating chapter on acute homosexual panic.

In Chapter XII catatonic dementia præcox receives consideration. This clinical type is described according to Kempf's classification as "chronic, pernicious, dissociation neurosis," and may be contrasted with the former paranoid reaction. Both according to the author, represent unsuccessful conflict between the socialized ego and the autonomic cravings of a sexual order. In the male sex these are usually of a perverted type. The paranoiac reacts by a struggle for defense, the catatonic by submission. During this period of submission, most typically represented by the catatonic stupor, the strong affective sex cravings are satisfied by hallucinatory experiences and symbolic acts and interpretations, while the repressing ego is for the time being in abeyance. After a period of this type of gratification the perverse cravings may become less insistent, the ego is able to reassert its domination, and the patient tends once more toward normal social behavior and recovery.

In Chapter XIV the hebephrenic type of dissociation of the personality is discussed as presenting the same struggle between the affective requirements of the developed ego, and the segmental perverse cravings. The nature of the reaction to the conflict determines the type of psychosis. In the hebephrenic condition the mechanism of regression plays a more important part than in the others. As in the catatonic and paranoid forms, the autonomic cravings, unsuccessfully repressed, become dissociated, take up partly independent existence and satisfy themselves in symbolic or hallucinatory manner. In order to cause the least distress to the vanquished ego, the individual sinks back to childhood levels of personality

where the perverse sex cravings can be satisfied without the pain of violating adult standards. This mechanism of regression according to the author is behind the silly, untidy, destructive and often filthy habits of the hebephrenic.

The volume closes with chapters on reconsideration of principles and a brief discussion of psychotherapy. The author is more liberal than some of the analysts in dealing with this latter subject and finds a place for suggestion and other methods as well as for psychoanalysis proper.

Illustrations are profuse throughout the book. Many of them bear on the subject of symbolism, and productions of patients, works of primitive man, and classical art objects from the museums of Washington and New York are freely drawn upon to illustrate the author's meaning. These are scattered throughout the pages often without much relation to the text, and lend a certain sensational as well as scientific interest. One might peruse this book solely from the standpoint of a discussion on art without regard to psychiatry in the strict sense. What the artists themselves might have to say on Kempf's interpretations would not be lacking in interest.

It is quite certain that after an acquaintance with this volume, art productions will never be looked upon by the amateur in quite the same light as before. The new insight obtained will be on the whole of a deeper and finer order. On this subject of art one may be excused for speculating on what will happen when Kempf takes time to study the storehouses of Europe.

The reviewer has attempted to set forth a general outline of this book without prejudice or distortion. He must frankly admit in his own mind a combination of fascination and abhorrence; and feelings of bewilderment, mixed with new and more profound understanding of the problems of psychiatry.

Independent of other considerations, the exhaustive case histories presented must fill a new place and be a permanent and important contribution to psychiatric literature. So far as the principles which Kempf has developed to explain these cases, at least this much can be said. They establish thinkable hypotheses to interpret many common clinical pictures which otherwise baffle attempts of the student to understand. Whatever the basic truth may be, from the pragmatic standpoint of permitting a useful formulation of cases, it seems that Kempf's work must be seriously considered.

The author frequently makes use of a method of presentation which might be called the "all or none" principle. Finding some of the premises acceptable the reader soon discovers himself carried with amazing directness and speed to positions of unstable security before he can let go. There appears to be some difficulty while studying this work, to strike any middle course between full acceptance and complete denial. As a final comment, it is only fair to touch upon the relation of Kempf to Freud. Kempf's work is based squarely upon that of Freud and it seems that he has hardly given due credit to that source for his inspiration. A pecu-

liarity of the author's method of analysis is the little use made of dream interpretation, and the exclusion of Freud's volume on that subject from the extensive bibliography attached, is significant.

M. W. PECK.

A Manual of Psychiatry. Edited by AARON J. ROSANOFF, M. D., Clinical Director, Kings Park State Hospital, N. Y., Lieutenant Colonel, Officers' Section, Medical Reserve Corps, U. S. Army. Fifth Edition, Revised and Enlarged. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Limited, 1920.)

This manual first appeared in 1905, as a translation of the *Manuel de Psychiatrie*, by J. Rogues de Fursac. Previous editions of the work, which in its English dress met with a cordial reception in this country, have been reviewed in the pages of the JOURNAL.

It is, therefore, hardly necessary to enter upon a critical review of a work already so well and so favorably known.

The original work, modified by successive revisions, constitutes the nucleus about which this manual has grown to its present dimensions and importance. The editor, as Dr. Rosanoff with becoming modesty calls himself, may indeed be in a large measure accorded, with propriety, the title of author, so numerous have been the changes made from the original text, so extensive have been the additions. Advantage has been taken in full measure of the great strides made by psychiatry during and since the World War.

The broadening field of psychiatry and the all-embracing vision of psychiatrists are well illustrated in a work in which the editor has called to his assistance the psychologist, the social worker, and the worker in the clinical laboratory.

It is refreshing to find in a manual of this type the full appreciation of the fact that, as the editor puts it, "psychiatrists no longer confine their activities within the walls of institutions for the insane, but are constantly organizing connections with general hospitals, schools, charitable organizations, courts of law, penal institutions, etc."

It is a mark of the changes which have come over the world, that psychiatry, the study, care and prevention of mental disorders and defects, is being recognized more and more as a factor in the social forces of the community; and as one which can be effectually availed of for the benefit of those without the pale of institutional care, more effectually perhaps than for those for whom institutional care has been found necessary.

In the present edition are new chapters, sections, or appendices dealing with applications of psychology in psychiatry, psychoanalysis, applications of sociology in psychiatry, extra-mural psychiatry, psychoneuroses, hyperthyroidism, normal course of early mental development, Stanford revision of the Binet-Simon intelligence scale, Kent-Rosanoff Association test, standard psychological group tests and the classification of mental disorders adopted by the American Medico-Psychological Association. Many addi-

tions have been made to the portions of the work dealing with arrests of development, epilepsy, constitutional psychopathic states, chronic alcoholism, cerebro-spinal syphilis, lumbar-puncture, and tests of the cerebro-spinal fluid.

Some of these sections have been rewritten. In a space of 640 pages, exclusive of indices, have been compressed a presentation of modern psychiatric science and practice, comprising a manual which may be highly recommended to the student, as well as to the practitioner of psychiatry.

Practical Psychology and Psychiatry. For the Use of Training Schools for Attendants and Nurses, and in Medical Classes, and as a Ready Reference for Practitioners. By C. B. BURR, M. D., Medical Director Oak Grove Hospital (Flint, Michigan), for Mental and Nervous Diseases; Member American Medico-Psychological Association; etc. Fifth Edition Revised and Enlarged. With Illustrations. (Philadelphia: F. A. Davis Company, 1921.)

That this excellent work has passed through four editions, and a fifth one is demanded is sufficient evidence of its popularity.

Dr. Burr has gathered here in a condensed form much that is essential to the proper education of the nurse, whether in psychiatric or general hospitals; and much will also be found of interest and value to the medical student and practitioner.

The experiences of psychiatrists and neurologists in the World War has not been lost to sight, and the author has availed himself of these to modify or enlarge the teachings of former editions.

Dr. Burr has been and is a steady and consistent advocate of preparedness, as we understood the word during the late war, and of military training, not only as a factor in preparedness, but as a physical and mental training of great value to youth in quickening perception, furnishing discipline in self-control, and inculcating obedience; and one is not surprised, therefore, to find the boy-scout movement and military training commended by him in his chapter upon the prevention of insanity.

Laudator Temporis Acti is his text apparently in this chapter. He dilates upon the simple life, the home training, the more or less strenuous methods of the past in the upbringing of children, in a manner which will bring to the minds of many of his readers, as it does to the reviewer of his book, a longing for the days that are gone.

Dr. Burr realizes that the days of what he terms "primitive" training are gone, certainly for our unborn population, but he states it as his belief that "much of the insanity in the young appearing in recent years could have been prevented had home and school conditions approximated those of the seventies."

All things are changed, and with them we, too, change; but not always are our methods, much as we vaunt the "advances of the times," changed for the better, as far as the good of the human race is concerned. We commend Dr. Burr's book to not only the heads of training schools, but to the thoughtful perusal of physicians generally.

Abstracts and Extracts.

BRONNER, AUGUSTA F.: *Individual Variations in Mental Equipment*. (Mental Hygiene. 1920, 4, 521-536.)

The first necessity in all fields of constructive activity is the knowledge of the nature of the material dealt with. In dealing with human nature a better approach can be made to the specific problems of particular individuals, if the social worker knows the practical aspects of psychology, the psychology of individual differences and of the factors producing varieties of human beings and of behavior. But whatever the problem, the mental equipment of the individual must be ascertained, for only in this light can maladjustment be understood. By "equipment" we mean innate abilities and traits as they have been modified by training and experience into habits and tendencies of thought and action—particularly as they offer potentialities for further modifications. The adequate study of mental equipment must cover at least five aspects.

1. Age level tests. The Stanford-Binet revision has the advantage of being in common use and, therefore, admitting of ready comparative study. Moreover, it estimates *general* ability and makes a classification of the individual in terms of mental age or I. Q. However, the classification of an individual should not be based on the Stanford-Binet test alone. First, because the results are not always reliable since they are based on special abilities and disabilities. Secondly, cultural or educational opportunities play a large part in some of the tests. Thirdly, special abilities and disabilities are left unrevealed as the tests deal with ideas and not with persons or things. The I. Q. is often unreliable because it is too high, too low, does not reveal special abilities or does not correlate with practical aspects such as social adjustments.

2. Study of Special Abilities and Disabilities. By testing for special abilities and disabilities we can reveal those potentialities in an individual which promise the greatest development and use and which can, therefore, be utilized socially, educationally, and vocationally. Trade and vocational tests aim to measure special abilities. The ascertaining of special disabilities is important, also, in order that people may not be put to work at something for which they are obviously unfitted.

3. Functioning of the Mind—The Dynamic Aspect. "When mental abilities have been ascertained, there still remains the question how well, with these abilities, does the mind function. . . . How great is the capacity for output." Mental energy, mental balance and control, powers of continuity of purpose are involved in the dynamic aspect of mental equipment. Here belong, also, the problems of the constitutionally inferior

persons who though not mentally defective lack force and effectiveness, the problems of the over-sensitive and over-inhibited intelligent people, and the problems of those over-dynamic persons who are defective in control, and therefore poorly adjusted.

4. Personality Make-Up. There are no standards for the measurement of personality. "Subjective standards and interpretations offer the only means of evaluating these objective and highly important life reactions." Although there is much interplay of the innate make-up and that resulting from environment and experience, yet these two aspects must be separated to see if the so-called personality traits might not be altered by means of a change of environment. The same experiences react differently on different individuals and the social adjustments often are dependent not on the mental capacity, but on the character and personal traits.

5. Mental Content. What are the ideals, ambitions, daydreams, fantasies, imageries, and obsessive thoughts of the individual or is he characterized by mental emptiness? When there is bad mental content the chain of causation must be brought into the light of full consciousness before the curative processes can be initiated and then good mental content must be introduced to offset the bad.

These five aspects of mental equipment overlap and are inter-related. The dynamic and personality qualities are closely related, and the mental content is determined partly by these and partly by the mental abilities. But, it is well to keep these in mind for diagnosis and recommendation.

"The time and effort such study requires have seemed amply justified by the specific social treatment that can be based on the findings and by the successful results in many cases which social treatment so founded has achieved."

DOLL, EDGAR A.: *Improper Use of the I. Q.* (The Journal of Delinquency. 1920, 5, 67-70.)

The I. Q. is based on the two assumptions that the average limit of the growth of intelligence is 16 years and that intellectual growth is constant throughout the developmental period. It is pointed out that recent investigation has tended to indicate that 13 or 14 years is nearer the average mental age of unselected adults than is 16 years, and that the I. Q. is generally constant only in relation to those tests whose fundamental principles of standardization presuppose this constancy. The I. Q. is a valuable device for indicating relative mental status, but it is not permissible to group indiscriminately the I. Q.'s gained from individuals of widely differing ages or mental ages. For example, an I. Q. of .50 with a life of 8 is not the same as an I. Q. of .50 with a life age of 16 because in the former the mental age is 4 and in the latter the mental age is 8. They are not truly comparable, for even if the I. Q. is constant the first individual will equal the second only after 8 more years of life. The I. Q. alone cannot rightly be used as a basis of classification in scientific investigation, for the distribution of the mental age and the life age must be known.

A recent study on the relation between vocational progress and intelligence is based on the relation of vocational progress to the I. Q.'s independent of the actual mental ages. The conclusions are drawn that there are I. Q. values above or below which success or failure is assured. But such success or failure is a direct function of the mental age. For example, a 4-year old child with an I. Q. of 100 is unable to read, but an average 12-year old child with an I. Q. of 100 can read almost anything. Similarly, in vocational work certain mental age limits determine success or failure. The same criticism is offered of Dr. Gordon's correlation between success in the mental test and the I. Q. Standing. "Again we must insist that performance in a given mental test is ordinarily a function of actual mental age rather than relative intellectual status."

WOODILL, E. E.: "*Public School Clinics in Connection with a State School for the Feeble-minded*," (Mental Hygiene, 1920, 4, pp. 911-919.)

For five years, monthly clinics for the examination of public school children, backward in school, or truants, have been held in various cities in Massachusetts under the auspices of the Massachusetts School for the Feeble-minded, at Waverley. A staff of examiners, comprising a psychiatrist, psychologist, and teacher from the school, and a nurse from the public school conducts the physical, psychological and school work examinations, and tests the child's general and practical knowledge. Information concerning family, personal, developmental, school, social, economic and moral histories is obtained by social workers either in advance or at the clinic.

Of the 1070 children examined for the first time, up to February, 1920, 522 boys and 261 girls were feeble-minded, 101 boys and 45 girls, not feeble-minded, and 5 boys and 1 girl, potential psychotics.

Recommendations, varied according to the age, sex and mentality of the child, are given as follows: For the idiot class, the importance of habit training is emphasized; information given as to how much to expect in the way of mental development; and the impossibility of school training explained. For the imbecile type, training along industrial lines—either in a special class or institution is advised. For the "bad" morons with poor home conditions, institutional training is recommended, and for the "good" morons, special classes. The parents are told of the child's limitations, and the schools advised in regard to the giving of school cards.

Institutional care was deemed necessary for 28 per cent of the feeble-minded.

The functions of a school clinic are to benefit the child; serve the school; serve the community. It benefits the child by helping the teacher to understand the mentality of the feeble-minded pupil; the schools, by showing the need for special classes, from which shall be excluded the hopelessly feeble-minded and the delinquents by differentiating those who

are retarded through sickness, poor attendance, and frequent changing, but who have normal ability, and designating which truants are or are not responsible; and the community by advising the parents as to home care and supervision, by selecting the institutional types, and by assisting in making a census of the feeble-minded.

DOWNEY, JUNE E.: *The Adolescent Will-Profile*. (Journal of Educational Psychology, 1920, XI, 157-164.)

The will-profile is a graphic presentation of scores received on 12 tests of character, or temperamental traits. The tests are made by various manipulations of handwriting, and measures the following qualities: Speed of Movement, Absence of Load, or Inertia, Flexibility, Speed of Decision, Motor Impulsion, Assurance, Resistance, Motor Inhibition, Care for Detail, Coordination of Impulses, Perseverance and Revision. These fall into groups emphasizing ease and fluency, force, and precision of reaction. Study of actual graphs suggests characteristic types of patterns. In comparing a group of 21 high school freshmen with a group of approximately 250 adults ranging from 17 to 55 years, the author plotted a profile using the median score for each trait of the high school group. These medians coincided with those of the adult group for the following traits: absence of load, speed of decision, motor impulsion, assurance and resistance. They fell below the adult group in speed of movement, flexibility, motor inhibition, care for detail, and coordination of impulses. The general pattern of the adolescent will-profile is of the willful or aggressive type, with emphasis on speed and fluency of reaction. It reveals a temperament with high motor impulsion and deficient motor inhibition, from which combination arise many disciplinary problems. There are several analyses of individual adolescent profiles with relation to teachers' estimates of the individual's intelligence, school marks, and I. Q.'s. In general with this high school group the correlation of I. Q.'s and grades was plus .84; of will scores and grade plus .72; of will scores and I. Q.'s plus .77. But with a group of college girls, there was not found a high correlation of points on the will score and army alpha examination. Above a certain point intelligence is not an important factor in the will test. A fair score may be obtained even from feeble-minded subjects.

WHITE, WILLIAM A.: *Extending the Field of Conscious Control*. (Mental Hygiene, 1920, Vol. 4, 857-866.)

Extending the field of conscious control is enlarging consciousness to include the motives for conduct. So long as motives are outside the field of consciousness the individual is their creature, and not their master.

During the ages of evolution the field of conscious control has been constantly extended in another sense. This has been accomplished by the increase in our knowledge of our environment facilitated by the perfecting of the sense organs, the prehensile hand, and the invention of such tools as the microscope and the telescope. Mind also is an instrument for con-

tacting with the environment. Like other instruments it does not function with absolute accuracy, and allowance must be made for error in making observations. For the correction of this error, the personal equation, in the relation of the individual to his environment, the psychoanalytic approach has been made, and mental hygiene developed.

An increased knowledge of himself in man will free him from pursuing cowardly methods of avoiding unpleasantness, unjust prejudices, projected wishes; from simulation, malingering and hysteria, the difference between which lies in the degree of conscious purpose with which he utilizes his symptoms. It will throw light, not only on functional disorders which have long been recognized as psychogenic, but also on such ailments which come nearly within the conception of organic disorders, such as paraplegias, tremors, spasms, aphonias, amblyopias, deafness, the so-called false gastropathies and cardiopathies, neuralgic-like reactions and emotional tantrums. In viewing the human machine, we realize that its several parts must serve the ends which it as a whole is endeavoring to accomplish. If then, the individual approaches the problem of his life with a divided interest, he must of necessity be constantly utilizing his energies for different, often mutually opposed, ends. The result will be that the machine will be set for certain types of reaction which are not permitted to come to pass. These motor sets of the organism will produce tensions of the musculature, voluntary and visceral, as well as psychological tensions which, when long continued or severe, tend to break down the machine. An example of the acute type of reaction would be the development of gastric ulcer in soldiers of the front line kept for a relatively long time under the tension of extreme anxiety, awaiting an attack. Of the more chronic type there is glycosuria from the constant inadequately reacted to emotion of fear. Energy used in the service of repression shows itself in the friction with which the machine works and the wear and tear of its several parts.